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ADDRESSES.

THE SYSTEMATIC TRAINING OF NURSERY-MAIDS.

Abstract of the Third Annual Address to the Graduating Class of the Medical and Dental Departments of the National University, Washington, D.C.

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The selection of a field in which you shall labor is not an easy task, so I may be pardoned for suggesting one. It is a field in which neither your age nor your bachelorhood will be objectionable; and it is one in which the laity will be glad to assist you. It is also one in which both branches of the class can take an active part for I believe all of you desire to benefit mankind.

The field I propose for you is, so far as I am aware, a new one, but none the less wide and useful. It is that of organizing a training school for nursery-maids —that portion of our home-guard which manages your patients during the periods of greatest sickness and mortality: infancy and early childhood.

That the management of children in general is wrong, unreasonable and unnatural is evident to any one who will consider the disproportion there is between the physical and mental capacities of the present generations, and diligently seek the causes. We not infrequently meet in early life examples of unusual mental activity supported by a tottering physique; or in another case an early sacrifice of both mind and body. By excluding transmitted vices of constitution, this impaired mental and physical condition is in my opinion largely due to bad nursing and bad habits contracted in early life. As a method for the correction of the evils consequent upon the mismanagement of children I now ask you to consider the necessity for and desirability of the systematic training of nursery-maids.

In thus attempting to invade the sanctity of the nursery I trust that I may not be charged with trespass, as my sole object is to convince mothers of the importance of early training. My ideas on this subject are not those of a doctrinaire but are the natural outgrowth of a decade's experience with children of different races and nationalities and of various stations in life from the highest to the lowest. During this period the children that have passed under my care and observation have been in great part sick; but this has had but little weight in the formulation of my opinions. I feel that an experience of eleven years, much of it with children in public and private practice, will certainly justify me in offering a few suggestions to young mothers as well as young doctors. It may be said that it is unfair to judge of the early training of children from their manner, habits and conduct while sick. I admit the force of this so far as the child is concerned, but when we witness the glaring defects of parental management which are so apparent in the sick room, we are justified in the conclusion that the like management in health cannot be what it should be. For although the disposition of the child may be affected by disease the management of a sick child is a good exhibition of parental government.

It is a sad commentary upon our boasted civilization that even educated women are not prepared for maternal cares, but are greatly dependent upon ignorant domestics for that knowledge of infantile responsibilities which should be learned in anticipation of maternity. There is a kind of modesty pervading the female mind which seems to prohibit all reference to motherly cares by intelligent advisers. This important duty has been too long left to uneducated women who are influenced by the examples and transmitted customs of their great-grandmothers whose minds were warped by superstitious practices. Indeed, so sacred are some of these superstitions that any attempt to convince an "old granny" that her methods are wrong will engender a prejudice against you that will have its effect beyond the nursery. Nursing is gradually becoming more conformable to reason and common sense, though nurses still retain many traditional prejudices and, fancying that nature has endowed them with superior skill and wisdom, they often do much harm where they intended to do good. If there is such a liability of young mothers being influenced by ignorant nurses to accept crude, barbarous and detrimental methods of nursery government, the importance of educating women for nursery maids would seem to be manifest. It cannot be expected that a mother can properly superintend the mental and physical development of her offspring until she has studied the necessities of childhood, the characters of children, and the consequences of good or bad management. It is in the nursery that many good and evil habits are formed. If the evil are overlooked they may possibly be corrected later in life at the cost of much suffering and trouble; but it is much easier to prevent bad habits than cure them; hence it would seem more profitable to sow good seed in the garden and not leave

the soil barren, trusting to luck for good fruit. It is no less true that the laborer in the nursery should be capable of distinguishing between traits of character which should be developed and those which should be eradicated.

The education and early habits of nurses, and their training for the duty they are expected to perform, are sadly deficient. It is necessary to have their services, therefore, they should be trained for the work. In fact we complain of their bad qualities and ignorance, but seldom use any means to correct them. I do not hope to eradicate this evil in the lower classes, but it can be modified by instructing the mind and appealing to the reason and the best feelings of human nature by means of example, precept, counsel and sympathy. The gradual removal of these defects can best be accomplished by enlightening the understanding of those who are to have charge of the nursery.

It is a rule in all professions that a person must have a general knowledge of the work before he can perform it, but this is not so in the management of the nursery. We expect the watchmaker to understand the mechanism of a watch, the groom to be familiar with the peculiarities of the horse, the cook to be proficient in the mysteries of the kitchen, and the maid to know the latest style of dress-making, hair-dressing, and millinery; but we are willing to entrust the delicate mechanism of a child to one of whom rarely more is required than a good name, a little experience, an even temper, and a recommendation which is seldom investigated to see if it is genuine. When mothers are convinced that something more than these few attributes are essential to a competent nursery-maid, we may hope to see the mental and physical health of our children improved.

All children require moral and physical treatment, and whether they be rich or poor their physical being demands proper food, proper clothing, sleep, ventilation and exercise; while their moral training requires example, discretion, and cultivated senses and faoulties.

In the higher walks of life a radical reformation in nursery government cannot be expected as long as the social duties of parents is such that the care of their children is consigned to a *supposed* competent maid hired to act as sponsor for their mental and physical growth upon no other justification than a neat appearance and a good recommendation from some unknown last employer.

If I should ask a mother what she considered the duties of a good nurse to be, I venture to assert that she would reply: to wash the child, dress it, feed it, put it to bed, take it up again, take it out for an airing, and not let it fall out of her arms. Now if she should ask me to define her duties, I would say that she should be capable of giving proper attention to the bodily necessities of the child and like attention to the necessities of its mind.

I do not pretend to have any novelties to offer, either in theory or practice, but only desire to define *what* the duties of a nursery-maid are and *why* they are *her* duties, and *how* she can best be instructed as to their performance. Her ignorance of the proper methods of nursing is a misfortune rather than a disgrace. She should have the opportunity of being taught such methods by qualified instructors.

The successful operation of the training school for sick-nurses has demonstrated the advantages of skilled nursing in the sick-room. It has seemed to me of quite as great importance to establish a training school for nursery-maids. With the aid of the former we can undoubtedly manage disease better; with the aid of the latter we *may* fulfil the *higher* mission of preventing disease.

In an examination of the vast amount of literature in the U. S. Army Medical Library, upon the nursing and management of children, I failed to find any reference to a training school for nursery-maids, so I may be the first to suggest such an institution. Its value will seem more plausible when we consider the *natural* method of instructing children which has been so successful in our public schools. The ease and rapidity with which children learn from *object teaching* will astonish the most sceptical.

The school should embrace a corps of instructors whose duty should be to lecture upon various subjects appertaining to the nursing and management of children. The requisites for admission should be a kindly, gentle disposition, a good moral character, a healthy constitution, a prescribed age, and a limited education. They should be taught the dietary suitable for different ages, and *when* and *how* it should become more liberal; the various qualities of foods, and the best methods of preparing them, and generally their qualities in regard to digestion and assimilation.

Another important subject to be taught in such a school would be the proper clothing for children, a field in which there is ample room for reform. I hesitate to particularize lest in disentangling the limbs of the children I find myself the object of maternal indignation for thus rashly invading the peculiar province of feminine talent.

A sleeping child is the picture of contentment. The bright smiles flitting across its face indicate the pleasant dreams of health. Sleep is its normal condition for most of its day and night, and if it does not sleep, it is because it has been overfed or is in a painful position, or has not had sufficient exercise, or is sick. Your nursery-maids should be taught all this, and what the indications of the various causes of unsettled sleep are. They should further be taught not to walk or rock the child to sleep, and instructed in the various methods of management, especially in this regard.

They should be taught proper methods of open-air exercise for children; the effect of atmosphere, of exercise, of sufficient and insufficient clothing, the dangers and consequences of exposure, and the necessity for constant and unremitting care and prudence when out for the daily airing.

A few lectures upon the anatomy and physiology of childhood would prove beneficial in preventing the numerous injuries incident to rough handling, and in saving the child from the many troubles which are frequently the results of the violation of physiological laws.

Another branch of instruction, and one of the most important, perhaps, should be in regard to the moral training of infants, for the influence of the nursery is great and very frequently continuous through life. She should be instructed that the infant knows practically nothing until it has been taught, and that the best means of teaching is by sight, hearing, taste, smell and feeling. As children learn largely by imitation, it follows that a good example, good manners and cleanly habits should be carefully taught as an important branch of the education of nursery-maids; and among things she should be taught not to do, is the indulgence in deception, vulgar talk, ugly facial expressions, ungraceful attitudes, the use of "ghost stories" or thrilling narratives; and, in fact, the avoidance of all unseemly, indecorous and improper language and conduct in the nursery. I have no doubt that many of my hearers have seen the consequences of some or all of these.

Finally, to conclude this brief summary of what should be taught in the proposed school, I have left to the last what may be, perhaps, the most important —the necessity for studying the various peculiarities of disposition and character, and of moulding and modeling the child with reference to them.

With this brief *résumé* of the scheme of instruction to be pursued in the field proposed, I submit to you that if you will interest yourself in it, and by so doing succeed in correcting the numerous mistakes and errors now so common in the nursery, you will find that your earlier professional days will be pleasantly employed, and that you will not have labored in vain.

ABSTRACT OF A LECTURE ON CHOLERA AND ITS TREATMENT.[1]

BY PROFESSOR DR. H. VON ZIEMSSEN,
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[The lecturer spoke of the importance of the subject, of its classification, the views of different students, as Pettenkofer and Koch, in regard to the nature of the infectious material, the duration of the cholera poison, and the ways of invasion. He accepts Koch's views. The incubation period varies between 12 hours and 5 days. The clinical picture varies according to the intensity of the infection. Cholera diarrhœa represents the mildest degree of the infection, beginning with dyspeptic troubles, or comes on suddenly without these, usually at night. With painful gripings come on a number of copious, thin, light-colored discharges, usually painless and with a feeling of relief, but often with an unpleasant sensation in the abdomen, general malaise, pain in the head, and slight fever.[2] During an epidemic of cholera these cases are of unusual frequency, too often ignored by unthinking persons, and by others magnified into more than their real import. When properly treated they run the course of simple infectious intestinal catarrh, and health is restored in one or two weeks. But if the diarrhæa be unchecked new infectious material gets into the intestine, and the simple mild diarrhœa develops into cholerine, or the asphyctic form of cholera.

Cholerine, the specific infectious vomito-diarrhœa, usually comes on suddenly at night, after dyspeptic troubles, diarrhœa and the development of gas in the intestine. Vomiting and diarrhœa succeed each other rapidly; the discharges are abundant, fluid, feculent at first, but soon colorless, and very much like water. There is moderate fever, small pulse, great thirst, rapid decline of vital force, sinking of the renal secretion, excessive muscular weakness, cramps in the legs, and partial loss of voice. These symptoms are exactly those of cholera nostras, in which there are some fatal cases which take on the symptomatology of cholera asphyctica. In favorable cases the normal function of the stomach and intestines is restored in one to two weeks, though there is great weakness which lasts for several weeks.

Cholera asphyctica, cholera algida, begins with prodromal diarrhœa, which often seems harmless to the patient because it is generally painless and accompanied by a feeling of relief. After a day or so of this diarrhœa the so-called cholera attack begins, usually at night; the discharges suddenly become very copious, frequent, whey-like, and follow in rapid succession, and then follow the usual symptoms of true cholera. In very severe cases the disease takes on a typhoid form, the most important symptom of which is the disturbance of the renal secretion, which may induce uræmia. There are also cases of simple febrile reaction, without important organic affection, but with all the phenomena of high fever, and finally taking on a typhoid form through secondary affection of organs; in these cases diphtheria of the mucous membrane of the large intestine, the vagina, the urinary and gall bladder, of the throat and larynx play the principal rôle. Rarely are there inflammations of the lungs, serous membranes, etc.

In regard to quarantine, sanitary cordons, etc., the author is in accord with the best sanitarians: land quarantine is impracticable and impossible. Cholera patients should not be brought into contact with other sick persons. The details of individual prophylaxis include first the cleansing of the houses, the floors, and the surroundings, a regular healthy mode of living, which conforms as nearly as possible to the accustomed methods, and the especial avoidance of all food which may induce digestive troubles. Those with weak digestive organs should exercise double care. Especially to be warned against are unripe fruits, cucumbers, fat meat and insufficiently fermented beer. No food should be taken unless it is well cooked, except such foods as are usually eaten raw, which should be previously washed with a disinfecting solution, such as a 1:20,000 solution of corrosive sublimate or a 1:1000 solution of salicylic acid, and then washed off with freshly boiled water. Milk should always be boiled a short time before it is used, and water should be boiled, acidulated with hydrochloric acid and then cooled. Of wines preference should be given to the red in case they have

[1] Translated, by permission of author and publishers, from advance sheets, by Wm. G. Eggleston, M.D., of Chicago.

[2] According to Poznansky the coming attack of cholera is indicated by slackening of the pulse, and the disease may be thus diagnosticated in healthy people; and the gravity of the attack is in direct proportion to the slackening of the pulse. [*Trans.*]

been bottled before the beginning of the epidemic. After eating and drinking from 8 to 10 gtt. of hydrochloric acid should always be taken, on account of the very noxious effect of this acid upon the comma bacillus. Strict personal cleanliness, frequent changes of linen, sufficient clothing, and movements in the fresh air are necessary. Cholera infected houses and quarters are to be avoided, and especially a room situated directly above one containing a cholera patient.[2]]

We now come to the treatment of the cholera patient. The present therapy of cholera is based on the consideration that we have to do with a specific mycotic process in the mucous membrane of the small intestine, and that the exuberant culture of the comma bacillus here is the cause of the colossal transudation into the intestinal canal; and further, that a product arises from this fungous culture which poisons the whole organism in the most severe manner. If this be correct—and it can scarcely be longer doubted—we have first to direct our attention to the bacillus culture in the intestine, and in the second place we must antagonize its action, guard against the blood-thickening which is the result of the transudation, and against the motor paralysis, the result of the action of the alkaloids of decomposition of the bacilli. It must therefore be apparent that the treatment is the more efficient the sooner it is begun. So long as we have to do only with the prodromal diarrhœa we may hope that the drugs which we give will affect the bacillary process in the intestinal wall. But if vomiting has set in it is very probable that nothing will reach the intestine from the stomach, or at least we cannot depend on the drug acting.

In my experience calomel has the first place of all drugs which have been recommended in the prodromal stage. After having tested its action in the beginning of typhoid fever I would now begin treatment in cases of cholera with 2 or 3 doses of .5 gram (gr.vijss), and then give small doses of grm. .05 (gr. ¾) every two hours. Calomel is superior to all other antimycotic drugs in that its action is tolerably clear, and its harmlessness in inflammatory infectious conditions of the intestines is sufficiently shown in the initial stage of typhoid fever. We know that a part of the calomel is changed into corrosive sublimate in the intestine, how much we do not know, but the quantity of sublimate formed is sufficient to have an antimycotic action; for since a 1:30,000 solution of corrosive sublimate is instantly fatal to fungi we can easily understand the action of the smallest quantity of sublimate in the intestine. For the same reasons subnitrate of bismuth is used by others in doses of gr.vijss—xv several times a day, and pure resublimed napthalin is recommended for trial by Rossbach in doses of gr.jss—vijss 5 to 10 times in 24 hours in keratin pills.

I cannot join in the general praise of opium; I have seen more unfavorable than favorable effects from it, and it seems to me that the cases treated with opium take on more severe symptoms and character than those treated without it. The same was said by Dornblüth of the Rostock epidemic of 1859, in which at last opium was entirely given up. Whether in larger doses it would act otherwise and better than in the usual small doses I cannot say.

The ethereal oils, as represented in the so-called cholera drops, are thought to act favorably. This "cholera drops" is a mixture of opii croc. 6, vini ipecac. 4, tinct. valerian. aeth. 12, and ol. menth. pip. 1. S. 15 to 25 drops every half hour in peppermint tea. These so-called Russian drops are used with peppermint tea, more especially in the light diarrhœa and early pains of cholera. In time of cholera they should be kept in every house, as their presence will serve to allay fears of a night attack. Peppermint tea and the ethereal oils have an atrocious taste and increase nausea. Good Russian tea with some rum is more pleasant to most people. Mulled wine also (half a pint of red wine cooked with cinnamon, cloves and sugar) is exceedingly pleasant, and is to be preferred to hot grog on account of the ethereal oils which it contains, and also on account of the amount of tannin in the warm aqueous alcoholic solution.

As regards diet and everything connected with it the physician cannot be too strict. In time of cholera every case of diarrhœa must be at once put to bed, a warm dry covering placed over the abdomen (hot bran sacks, or a pot-lid with flannel covering), and the patient given a cup of hot tea. If there is indigestion it is advisable to give a hydrochloric acid mixture (3 to 150 water and 25 syrup), and for food and drink only oat and barley water should be given. And this exhausts the most essential part of the treatment of cholera diarrhœa. Since it can be diagnosticated from a simple catarrhal diarrhœa only by finding the comma bacillus in the discharges, and as the necessary bacteriologal examination of the stools is impracticable in the majority of cases, the safest plan is to regard all cases of diarrhœa, which is profuse and resists other remedies for 24 hours, as infectious, and treat them with calomel, and keep the patients in bed until the stools become normal.

In cholerine, the specific infectious vomiting and diarrhœa this same method of treatment is most important, but in view of the profuse discharges, the severe nature of the attack and the vomiting, the antibacillary treatment must be kept in mind, and with the other treatment recommended 3 doses of calomel of 0.5 should be given in the course of 3 hours, and the calomel continued in small doses. Of course we cannot know how much of this reaches the intestine. It is not advisable to give other drugs, such as opium, as it will only be vomited. For the vomiting, and to allay thirst small pieces of ice may be swallowed, and morphia may be given subcutaneously in doses of .01—.02. For the very profuse and obstinate diarrhœa the warm tannin injections as used by Cantani are best.

There is no difficulty in making the diagnosis of cholera algida. The attack sets in with such stormy symptoms, and the subsequent conditions develop so rapidly in a few hours that the diagnosis is certain as soon as the physician enters the room. When first

[2] For rules for disinfecting clothing, bedding, etc. see Report of Committee on Disinfectants of the American Public Health Association, a *résumé* of which are given in THE JOURNAL, Vol. VI. p. 11. [*Trans.*]

called to a case of cholera give 0.5 of calomel every hour for three hours, and then .05 every two hours. While it is possible that none of the calomel will reach the intestine, but all may be vomited, and that the bacillus culture in the intestine has already reached a high grade, the calomel is recommended.

Enteroclysis and hypodermoclysis, as used by Cantani and his Italian colleagues, should be made use of immediately.[4] The earlier this is done the better the chances for recovery, according to Cantani. It is absolutely necessary that the physician have the ingredients for these procedures, tannin in doses of 20 grams for the first, and 4 grams of sodium with 3 of carbonate of soda already mixed and ready for use. He should also have a case containing a glass syringe of 25 or 50 ccm. capacity (I use the same as for blood injections), several cannulas, and a horn cannula (hard rubber?) with a long rubber tube for the infusion. A funnel can be had in almost every house, as well as boiling water. If these things have to be got ready when needed one or two hours may be lost, which is serious both for the patient and physician.

Enteroclysis is made by Cantani's method with 1 or 2 litres of a 1 per cent. solution of tannin, at a temperature of 39° or 40° C., several times a day. Of the value of the tannin infusion, which is used not merely in the prodromal diarrhœa but in the asphyctic stage also, Cantani says: The warm mass of water certainly acts mechanically and by its heat in a way to vivify and stimulate the intestine and the whole organism, but the principal point is the stimulation of absorption, in consequence of which thickening of the blood and anuria are prevented, or actively antagonized if already set in. In many of Cantani's cases the renal secretions again became active a few hours after enteroclysis. Cantani thinks, furthermore, that the tannin sterilizes the contents of the intestine by souring, and perhaps at the same time forms very insoluble tannin compounds with the alkaloids of degeneration, thus rendering them harmless, and also limits the transudation from the mucous membrane by its astringent action on the blood vessels. Cantani goes on the assumption that the infusion passes the ileo-cæcal valve and enters the small intestine, sometimes even going into the stomach, as is shown by the fact that the tannin solution is sometimes vomited, or may be removed from the stomach by the stomach-pump. Cantani adds that hydrochloric acid used in a 5 per cent. solution sterilizes more powerfully than tannic acid, but is less astringent; and that corrosive sublimate, salicylic acid, boracic acid, thymol, and other substances perhaps act still better than tannin, but his results with the last were so good that he made no other experiments. There are several hypothetical assumptions in regard to this method, especially the washing out of the small intestine,[5] but the reports of the Italian physicians are so favorable that the value of this simple procedure cannot be doubted.

The purpose of Cantani's hypodermoclysis is to antagonize the effect of the rapid loss of water and alkalies from the blood and tissues in a simple and harmless manner by the subcutaneous infusion of an alkaline saline solution. The method is as follows: From 1 to 1½ litre of a solution of sodium chloride 4 grams, sodium carbonate 3 grams, to 1000 ccm. of water (Drs. Boretta and Minola, of Naples, also add 3 grams of sodium sulphate) at a temperature between 37° and 40° C., according to the temperature of the patient, are injected into the subcutaneous tissue of the body by means of a somewhat complicated apparatus, after previous disinfection of the trocar. The mass of water is left by Cantani to spontaneous absorption, which takes place more quickly if a soap-bath at 40° C has just been given. The infusion must be repeated about every four hours, until the favorable effects, which may even appear after one injection, are manifested. These effects are: re-animation of the organism, warming of the extremities, improvement in pulse and respiration, and disappearance of anuria and cyanosis.[6]

In Italy the results seem to be very favorable generally, though Cantani's statistics have no value. For in order that cholera statistics be of value there must be exact diagnosis of the form of disease and the stage of the disease, as well as a statement of the period of the epidemic in which the cases occur. The prognosis of individual cases depends very much on the stage of the epidemic; with equal intensity of the disease the prognosis in the last stages of the epidemic is very much better than at the beginning. But the method seems to have an undoubtedly favorable influence on the disease. But I would advise that the method be much simplified. The complicated injection apparatus of Cantani is entirely unnecessary. A glass syringe of 50 ccm. capacity, such as I use for subcutaneous blood injections, with 2 or three cannulas, is entirely sufficient. I would further advise that the salt solution be dissipated by massage, as in case of blood-injections, for absorption will thus be hastened, and in a quarter of an hour 1 or 1½ litre injected in 2 or 3 places can be easily dissipated and absorbed The physician can

[4] By Enteroclysis is meant the injection of a large quantity of fluid into the intestines. Cantani used tannin solution. Hypodermoclysis is the injection of a large amount of fluid into the subcutaneous cellular tissue. For hypodermoclysis Cantani usually employed a solution composed of water 1 litre, sodium chloride 4 grams, sodium carbonate 3 grams. This is heated to 39° or 40° C., and injected. Cantani says that the sides of the abdomen are the preferable sites for the injections. The quantity of liquid to be injected should not exceed 1500 ccm., as a rule, when the patient is in the algid asphyctic state. When the patient is not very dry smaller injections are better—from 800 to 1000 ccm. at a time. In the typhoid stage the injections should be of 500-600 ccm. each. In most cases it is necessary to repeat the subcutaneous injections until the pulse reappears, or increases in strength, the respiration improves, cyanosis lessens, and urine is secreted. The hypodermatic injections should be still more frequently repeated in the typhoid state. The more advanced the symptoms of algidity and paralysis the higher should be the temperature of the fluid injected (39° or 40° C.) Cantani says that the practical results of enteroclysis in cholera were even more splendid than those of hypodermoclysis.

Vincenzo Vitone used successfully the following solution for enteroclysis: warm water 100 grams, tannic acid 3 grams, gum arabic 20 grams, laudanum gtt. 12, in a child of 8 years. E. Vilcani has used as much as 15 grams of tannic acid to 2 litres of water.

Cantani's solution varied from a 1 per cent. solution of tannic acid to 2 grams: 600 ccm.

For abstract of Cantani's article see Lancet, Sept. 26 and Oct. 3, 1885. [*Trans.*]

[5] There is no doubt that fluids can be thrown *per rectum* beyond the ileo-cæcal valve. [*Trans.*]

[6] M. Hageur, during the recent epidemic in France, treated cholera by venous injections of saline solution. To a litre of distilled water was added 10 grams of sodium chloride and 8 grams sodium sulphate, heated to 38° C. The injection was effected in from 12—15 minutes. In the case of all feeble subjects this treatment produced only incomplete reaction when the algid condition had been pronounced. Among healthy sober adults and children the results were remarkable; the injections seemed to rescue them from certain death. [*Trans.*]

easily carry the syringe recommended, as well as powdered tannin, salt and carbonate of soda, which are to be dissolved in thoroughly boiled water. The needle should also be thoroughly boiled before each injection.

I may also mention here the procedure of Keppler, which he has used with good results in Venice. For the subcutaneous injections he uses a solution of 7 grams of salt, 1000 ccm. of distilled water, and 10 grams of absolute alcohol. This solution is warmed to blood-temperature, and injected into the neck or infra-clavicular region, 50 ccm. being injected every minute until the pulse returns, then every 5 minutes, and later every half hour. In all, from 8 to 12 litres are used. Keppler emphasizes the great value of the alcohol for sustaining the heart, and especially commends the value of the method when used early. The advisability of adding alcohol to the solution is apparent, and should not be neglected.

The subcutaneous method is certainly the most promising, and capable of many modifications, especially as regards the use of antimycotic and other drugs. On account of the danger in which the patient is, and the anxiety of his friends, other measures than those mentioned must be resorted to. Of these stimulants are of the first importance.[7]

In beginning paralysis and cyanosis camphor, in the form of ol. camphorat. fortius (1:5 instead of the officinal 1:9) should be given, preferably hypodermatically, and when from 3 to 5 syringefuls are injected one after another at the right time the action of it on the heart is very favorable. In many cases everything depends on energetic stimulation, and for this camphor is much superior to ether, in that there are no local after-effects from its use, such as suppuration and gangrene. Stimulants which act through the stomach, such as the preparations of alcohol, have no especial value, for the stomach will absorb nothing, and at most the mucous membrane of the fauces and œsophagus will take up but little. Champagne is to be recommended, placed on ice, with broken ice in it, and taken in small quantities; this is very grateful to the patient.

In the muscular cramps of the legs and other parts it has always seemed to me that rubbing the bellies of the muscles with large pieces of ice was the best remedy. Spiritus saponis is also used for rubbing, but when much used acts unpleasantly on the olfactories of the patient and attendants.

Continuance and repetition of diarrhœa with colic and tenesmus are best treated locally with warm infusions of tannin with the addition of some opium, or, if large infusions are no longer borne, by means of small clysters of warm thin starch and opium injections (starch decoction 30 grams, with gtt. 20 tinct. Thebaic.), repeated several times a day. In the later stages of the disease, when the condition of infection and intoxication is broken and the resulting local disturbances become more prominent opium is very useful.

Cholera typhoid is treated symptomatically according to the more prominent disturbances. The uræmic form, as in cases of acute scarlatinal nephritis, is treated with warm, and in lowered temperature with hot, baths, followed by warm woolen coverings, and internally with milk in large quantities mixed with carbonated waters. Drugs are practically useless, and so-called diuretics do more harm than good.

The diphtheritic as well as the inflammatory (pneumonic, etc.) forms of cholera typhoid are treated according to the established rules for these diseases, though it must be remembered that here we have to do with an organism which has been severely poisoned, and whose organs are more or less crippled. The cautious use of food and stimulants will therefore play a leading part in treating the local affection.

The diet of the convalescent cholera patient demands especial care. The severe and partly necrotic lesions of the intestinal mucous membrane, the extensive epithelial loss, the tendency of the vessels to new hyperæmia, the faulty state of the assimilative functions, all demand the greatest precaution, and we cannot too strongly oppose the impatience of the patient and his friends to quickly return to solid food and to leave the bed. Restoration takes place more rapidly and more completely in bed and on a fluid and semi-fluid diet. You will not go wrong if you regulate the diet for three or four weeks as you would after a severe attack of typhoid fever. I would recommend the following diet: Night and morning, tea with English biscuit; Noon, meat broth and meat juice, a soft-boiled egg, with a little Port or Marsala, some minced lean ham, or pigeon or chicken, or partridge in the broth, light red wine, such as Bordeaux, Voeslau or Ofen, slightly warmed; Afternoon, tea with cakes. Supper, mucilaginous soup with meat juice, meat extract and wheat-bread, and half a pint of well fermented beer. After this we may allow boiled rice or grits with blackberry juice. Thickened blackberry juice (strained) is very advisable on account of the quantity of tannin which it contains; made into a compote it is very digestible. Bilberries (blueberry, whortleberry) may be allowed after having been soaked in fresh water for 24 hours, when they swell up as though just boiled. The only drugs to be used at this stage are bitters, both pure bitters for the improvement of the appetite and of the gastric functions, and the combined for their influence on intestinal digestion and on peristalsis; of these radix rhei is best. Irregularity of the bowels is so very frequent in the course of convalescence from cholera that the patient cannot do without rhubarb. In small doses, in which the bitter principle acts more than the cathartic acid, it obviates the fatal tendency to diarrhœa and flatulence; while in larger doses it acts well in case of existing constipation. In the first case I would recommend the aqueous tincture of rhubarb with elixir aurant. comp. in equal quantities, giving a teaspoonful two or three times a day. If stronger action be needed the tinct. rhei vinosa either pure or with elix. aurant. comp. and tinct. chinæ comp. may be given in teaspoonful doses.

After convalescence is established I would recommend salt baths in a mild mountain climate, and in winter a climatic resort (sanitarium).

[7] Poznansky recommends small doses of hydrocyanic acid given at intervals, which quicken respiration, make the circulation more active, and raise the temperature. [*Trans.*]

ORIGINAL ARTICLES.

INTUBATION OF THE LARYNX, WITH INFERENCES FROM ONE HUNDRED AND THIRTY-FOUR OPERATIONS.

Read in the Section on Diseases of Children, at the Thirty-Eighth Annual Meeting of the American Medical Association, June, 1887,

BY F. E. WAXHAM, M.D.,

PROFESSOR OF DISEASES OF CHILDREN COLLEGE OF PHYSICIANS AND SURGEONS OF CHICAGO; PROFESSOR OF LARYNGOLOGY AND RHINOLOGY, CHICAGO OPHTHALMIC COLLEGE.

In presenting this paper, it is not with the object of instructing this assembly or of imparting anything new or startling, but simply to present the result of my experience with this new operation, with which you are all familiar, and to excite a discussion which will be more valuable than any contribution.

On April 19, 1885, I performed intubation, for the first time, according to the method of Dr. O'Dwyer. In August, 1886, I reported 83 cases with 23 recoveries, or a percentage of 27.71. Since the latter report it has been my privilege to perform the operation in 53 cases, with 14 recoveries, making a total of 136 cases with 37 recoveries, or 27.20 per cent.

The ages of these patients were as follows:

5	cases with	1	recovery,	or 20 per cent.	under one year.
15	" "	3	recoveries, or 20	"	between 1 and 2 years.
29	" "	7	" 24	"	2 "
23	" "	4	" 21	"	3 "
21	" "	7	" 33	"	4 "
15	" "	7	" 46	"	5 "
3	" "	1	" 33	"	6 "
9	" "	2	" 22	"	7 "
4	" "	2	" 50	"	8 "
2	" "	2	" 100	"	9 "
2	" "	0	" 00	"	11 "
1	" "	0	" 00	"	14 "
7	" "	0	" 00	"	
136		37	27.20		Av. age, 3 yrs. 8 mos.

There were 72 cases three years old or under, with 16 recoveries, or 22 per cent., while there were 64 cases over three years, with 21 recoveries, or 32.8 per cent.

The youngest patient to recover was an infant of nine months; the oldest a child of nine years. In every case without exception false membrane was observed. The longest period that the tube was worn was two weeks, the child being but two years old and making a perfect recovery. The shortest period that the tube was worn was one hour. The patient was a boy three years old, and was under the care of Dr. J. G. Berry. The patient was in a semi-comatose condition and was almost pulseless. All who saw the child were firm in the belief that he could live but a very short time. The tube was introduced and the child was soon resuscitated, considerable membrane being rejected. In an hour we were again called in great haste, as the child had coughed up the tube, together with a small piece of membrane. As the respiration was perfectly easy the tube was not reintroduced. The membrane did not re form, and the child made a rapid recovery.

Taking the above cases as a standard, the results would seem satisfactory.

In the whole history of tracheotomy where can we find a record of 72 cases of three years or under, with recoveries amounting to 22 per cent.? Indeed, tracheotomy is so rarely successful at this age that many consider it a contraindication to the operation. After the age of three years we have a record of 64 cases with 21 recoveries, or 32 per cent. A record certainly comparing favorably with tracheotomy.

Many, in criticising intubation, speak slightingly of the operation and insinuate that the operation is *always performed early* and often unnecessarily. Such is not the case. In my own experience the operation has often been delayed and accepted only as a last resource. It has not been performed until there has been absolutely no hope without surgical interference.

Many, with limited experience, report a much higher percentage of recoveries than has been given above. Some report as high as 30, 40, and even 50 per cent. of recoveries. In my own experience 17 successive operations were followed by 8 recoveries, or 47 per cent. In another series of cases 13 successive operations were followed by 6 recoveries, or 46 per cent. Taking a large number of cases, however, of all ages, conditions, and grades of severity, and we can hardly hope to save more than about 25 per cent. This, however, is a larger proportion than can be saved by the majority of physicians with tracheotomy.

DISCUSSION.

DR. A. B. STRONG, of Chicago, said: We have listened to a very favorable report on intubation of the larynx for diphtheritic croup. The report is, I am firmly convinced, much more flattering than the facts would warrant, had each and every case so far intubed been appealed to. It is but natural that we should first hear everything favorable to this operation, and but little against it. Surgeons are not accustomed to report their failures or mistakes, yet failures, and many of them to one success, are legion. It is time that the other side should be heard from. For one year prior to last February I gave the subject of intubation for diphtheritic croup much study and most careful practical attention. During that time I intubed 32 cases, and 31 of them are dead. With these personal facts before me, I certainly am no longer justified in recommending the operation. Since then I have refused to intubate a large number of cases. I deem it my imperative duty to the profession, and in the interest of humanity, to give you the benefit of my experience. The operation, when skilfully done, is easily and quickly performed, without blood, anæsthesia, or fright of parents. With one or two exceptions I have had no trouble whatever to introduce the tube in a few seconds. The first result, relief of the dyspnœa, is all that could be desired; for a few hours everything as a rule has gone on nicely. But look at the ultimate results! Thirty one dead, either from the extension of the membrane downwards, traumatic bronchitis, or pneumonia, or both combined, or from actual starvation. The trouble was the children could not eat or drink without in each case and every attempt some of the contents of the mouth passing through the tube into the air-passages, and so exciting them to resentment

or inflammation. To inject a little food into the rectum of a child is easy enough, but as a means of nutrition it is practically a failure. To put a rubber catheter through the mouth or nose into the stomach, can be done, though not easily or without great resistance from the frightened child. To nourish the little one in this way, many times in the twenty-four hours, is, to say the least, of doubtful utility. In bedside practice it is thoroughly impracticable.

Again, in introducing the tube there is danger of making a false passage. I know of three or four such cases, one of them in my own practice. The point of the tube was seen and felt under the skin just above the hyoide bone. On introducing the tube no force whatever should be used, unless you are absolutely certain that the point of the tube is in the glottis, and then only a minimum amount. To avoid such danger knowledge, skill, and gentle manipulation are as essential here, or rather more so, than to introduce a sound into a narrow and tortuous urethral track without doing violence to the parts. Don't make a false passage. Don't use force.

Again, when the membrane has existed in the larynx for three or four days, when it generally begins to loosen, there is great danger of crowding it down, with imminent risk of suffocating the patient. This has happened to me four or five times. Though there was no death from this cause alone, I came very near killing one little patient. In short, my experience, personal and otherwise, on introducing the tube compels me to say it is not the simplest operation in all surgery. To remove the tube is more difficult than to introduce it. In about one-fourth of my cases I have had more or less trouble to get the tube out. That is, I failed on the first or second trial. To get into the small hole at the upper end of the tube with the point of the extractor, while the larynx moves up and down and the child struggles, is easy to talk about; but to do it without puncturing the soft parts adjacent to the collar, or grasping them in the bite of the instrument, is entirely another matter. In one of my cases the tube appropriate for the age slipped through the larynx. It was not pushed through. I had great difficulty in extracting it through the glottis. It is scarcely necessary to say the child died a few hours afterwards from a then existing pneumonia and shock consequent upon the operation. In only one of my cases was the tube coughed up. I always found the tube perfectly clear; no incrustations. This was so whether the tube had been in position a few hours or several days.

I have heard enthusiastic supporters of intubation say that the after-treatment of a case wearing the laryngeal tube, was easy in comparison with a similar case wearing the tracheotomy tube. This certainly has not been my experience. I believe it to be a most erroneous claim. Facts that I have observed will not sustain it. The child is tormented with thirst; only when this great craving becomes intolerable will the little one eagerly attempt to swallow fluids. He makes a bold attempt, gulps or sips down a little, but pays most dearly for his experiment in the distressing cough the act has excited. You can't coax him to try that again until his burning thirst is so intolerable that he must have fluids. Ice in the mouth serves him the same way. He takes nothing willingly. This is no fancy picture. It is simply a statement of facts as observed in each one of my thirty-two cases. Some have not so much difficulty as others, but all have more or less; enough to do them a positive injury. It makes no difference when the child is taking fluids, whether it is lying down or sitting up, head bent to one side or the other, chin depressed on the chest or occiput thrown back. In any and all positions of the head, he can't drink without a dangerous amount of the fluid passing into the air-passages.

Since quitting intubation I have made tracheotomy in some cases; two of these recovered, making for me a total of five recoveries in eighteen tracheotomies. Never before my experience with intubation did I fully realize what a great blessing it is for a child, after tracheotomy, to be able to drink as fully and as often as it desired without endangering its life by coughing or having its lungs irritated by the fluid. I believe my personal experience warrants the assertion that tracheotomy will save every case that intubation will, and do it with much more comfort to the little patient and far less anxiety to the surgeon and parents.

In conclusion, I would say there is one condition in which I have found intubation of decided practical value. That is as aid to the after-treatment of tracheotomy. You are aware that tracheotomy tubes sometimes have to be worn weeks and months after the patient has recovered from the laryngeal stenosis. The text-books of current literature are full of such cases. The explanation has been that granulations grow in the upper angle of the tracheal wound and so obstruct its lumen when the tube is removed that air cannot pass through the larynx.

Surgeons have cut and burned off these growths once, twice, or it may be a dozen times; and still often they dare not leave out the tube for fear of suffocating the patient. The trouble I have found is not so much in the granulations as in the obstruction caused by the infolding of the cut edge of a ring or two of the trachea, at the upper angle of the incision into it. When the tracheal tube has been worn for days this infolding is well-marked, together with depressed condition of a whole ring or two of the trachea just above this highest incised one. This condition was most beautifully shown in one of my cases. I tried many times for three weeks, by snipping and burning, to get rid of the tube. Not till I placed the child in a good light and made careful examination of the part did I discover what was the matter. I found abundance of granulations, but they were resting on the incurvated parts, as I have mentioned. I introduced the laryngeal tube through the mouth and had the great satisfaction of seeing the infolding parts brought up to their natural position, and so the obstruction was removed. I immediately removed the laryngeal tube and did not replace the tracheal one, and the wound healed quickly without any further trouble.

The same experience I had with another case. I

shall keep my intubation set for just such cases. I shall not intube the larynx again till some modification of the O'Dwyer tube enables the child to swallow nourishment. Some one else, however, will have to do the experimentation first. No more of it for me.

Dr. M. P. Hatfield, of Chicago, said:

My experience with intubation, although much less, closely resembles that of Dr. Strong. The cases were ten in number; the insertion of the tubes in the first two being performed by Dr. Waxham, and the results were ten deaths. In four of the cases death apparently resulted from exhaustion, or diphtheritic poisoning, in the remainder from "Schluck-pneumonia," or that produced by food entering the trachea. Consequently, I believe with Dr. Tascher that the most valid objection against intubation is the dropping of food into the bronchial tubes and the resulting broncho-pneumonia. This ordinarily appears in the course of forty-eight hours, and is, and will continue to be, I fear, the most frequent cause of death after intubation. The insertion of the tube, even in the hands of experts, is not as easy as they would seem to imply, but this difficulty can be overcome more easily than the danger just alluded to. The tube often gives great, if not permanent, relief, but the more promising cases are the very ones in which the subsequent pneumonia appears. At least, such is my experience. It will be, I fear, that of the general practitioner who hopes to realize Dr. Waxham's gratifying percentage of recoveries.

Furthermore, it ought to be remembered that, while great credit is due to Dr. O'Dwyer for his patient and conscientious experimentation with intubation, it is not a new device. It was fully and fairly tried more than thirty years ago in France, and abandoned because the results were less favorable than those from tracheotomy. In fact, Bouchut, who proposed the instrument, finally abandoned it entirely because, in his own words: "The application of the cannula produces the results which might have been expected from an instrument of that nature. It delays asphyxia and avoids a grave operation, tracheotomy, which the progress of events might have rendered useless." Does intubation do more to-day?

Dr. Mary Thompson, of Chicago: I would like to ask Dr. Waxham whether he introduces the tube in the original way—anteriorly or posteriorly?

Dr. C. W. Earle, of Chicago: I wish to compliment Dr. Waxham for the introduction or revival of this operation in our city, and the skill with which he performs it. I think we, as a profession, and those more particularly engaged in the practice of diseases of children, are under great obligations to him for pushing this matter forward. The tabulated statement of cases which the doctor has presented to us this afternoon is very favorable indeed; although I think he is mistaken in believing that tracheotomy, in the hands of skilful operators, has not presented as good results. I am in favor of the operation when I can get Dr. Waxham to perform it for me. The trouble is that everybody thinks he can do it. It is like abdominal surgery—everybody believes he should be permitted to dabble in it, and many who have had no special study, practice or fitness, rush in to tube the larynx. A large number of people will permit the operation of intubation who would not permit tracheotomy, and in my judgment many lives will be saved for this one reason. There are a certain number of throats to be opened, for we shall always have cases of laryngeal stenosis, and tracheotomy or tubage must be done. What we should insist upon is that only those specially fitted should be allowed to do this operation.

Dr. Waxham has undoubtedly saved more cases by intubation than any surgeon in the city has by tracheotomy; but if we knew all the unsuccessful cases which have taken place, the percentage would be small enough, and might not compare favorably with tracheotomy.

Some operators in this city have tubed the larynx many times and have lost every case, and they are now crying a halt for the operation. It is time for them to stop, or do as I do, send for Dr. Waxham. I have tried to do the operation with the doctor by my side: it was impossible for me to enter the larynx; but as soon as I relinquished the instruments to my colleague the child was relieved at once. I made this open confession before the Chicago Medical Society some weeks ago, and a quiet smile passed around the hall. If others had made this same confession and stopped operating (and among them some who perhaps smiled), it would have been better for the babies. I regard the operation as a justifiable one, and one which will save many, but I shall insist, as far as I am personally concerned, that none except those who are expert, those who have had a great deal of experience, and who thoroughly understand the technique of the operation, shall perform it. I desire to raise my voice against every person getting a set of these instruments which the doctor has exhibited, and every time he sees a child suffering with slight stenosis of the larynx, attempting to do this operation. I know a great many children are killed through lack of skill on the part of the operators. The only criticism that I desire to make, and I have made it before, is that Dr. Waxham represents that the operation can be done *with perfect ease by anybody*. I think that in this he is in error. *He* performs it easily, but everybody cannot.

Dr. J. A. Larrabee, of Somerville, Ky.: I regret coming in too late to hear the whole of the paper. The statistical showing is exceedingly rare, and Dr. Earle has more than covered the ground when he says that the great success is due to the skill of the operator. I have never performed intubation. I think there is but one physician in the city of Louisville who has performed it, and in every case the patients died. In three instances the tube was buried with the patient.

We have had this past winter an epidemic of diphtheria in our city, and in the moribund cases in which I was called upon to do the operation of tracheotomy, under the most unfavorable circumstances, as a *dernier ressort*, I operated fifteen times, with three recoveries; the three patients that recovered were all under 3 years of age, and the others 4.

Dr. Waxham, in closing the discussion, said: I am very glad to have heard from Dr. Strong and from Dr. Hatfield, for it is only fair and right that we

should hear from both sides of every question. Because some have met with unvarying failure with tracheotomy, shall we denounce the operation? Because two or three have been unfortunate in their experience with intubation, shall we all vote the operation a failure? What do these gentlemen say when the statement is made that one operator has performed tracheotomy 100 times with but 1 success, and another 50 times with but 2 recoveries, another 20 times without a single recovery, and another 16 times with but 1 success, and still another 14 times without a recovery, making 200 cases by five operators with but 4 recoveries, or only one out of every 50? The failure of these gentlemen with intubation has more than its parallel in the history of tracheotomy, and I cannot understand why they should denounce one operation, and still uphold the other. Indeed, I cannot understand the reason of their failure, unless it be from the use of too large a tube, or from lack of careful attention in the management of their cases. I am not alone in my success. Dr. O'Dwyer reports to me 25 per cent. of recoveries, while Dr. Ingals, at the meeting of the American Laryngological Association, reported 514 cases collected from various sources with 134 recoveries, or 26 per cent., a percentage almost identical with my own.

If you have intended purchasing these instruments, by all means do so; learn to use them *skilfully* and *well*, and I assure you that you will never regret it. Do not be discouraged by the report of a few unsuccessful cases. I feel that if any operation was ever a Godsend to suffering humanity, this one certainly is.

In answer to Dr. Thompson's question, I would say that I still introduce the tube with the beveled surface forwards, and the projecting shoulder backwards. The epiglottis can more perfectly close the larynx with the tube in this position; and there is much less danger of ulceration.

In answer to another question I would say that, while the artificial epiglottis does not work quite as perfectly in the larynx as it does under my finger, yet it is of great assistance in swallowing.

There are many advantages that intubation possesses over tracheotomy, the chief one being our ability to gain the consent of the parents. We shall have a great many patients where tracheotomy would not be allowed. One of the most touching incidents of my life occurred not long since. I was called to perform the operation upon an interesting child of 4 years. The people would never consent to tracheotomy, and the mother left the room weeping and in the deepest distress at the thought of having even this operation performed upon her child. The nurse took the suffocating child upon her lap, and in about five seconds the tube was in position and the child perfectly relieved. The mother was recalled, and approaching the child, crying and wringing her hands in the greatest grief, the little one looked up to her with a smile, and said, "Mamma, I never said boo!" This certainly is a great contrast to the scene at a tracheotomy. But we must have other than æsthetic reasons for preferring intubation to tracheotomy. The crucial test is this: Can we save as many or more lives by this method than by tracheotomy? The statistics bear me out in the statement that we can.

I have now under my care a little patient 9 years old who has been wearing a tube for two days.[1] The case was one of pharyngeal diphtheria, with extension of membrane in the larynx. There are two other cases of diphtheria in the family. The operation was performed to prevent impending suffocation, which had been increasing for two days. I would suggest that a committee of two be appointed to visit and examine this patient and report their conclusions through THE JOURNAL of the Association.

REPORT OF THE COMMITTEE ON INTUBATION.

TO THE CHAIRMAN AND MEMBERS OF THE SECTION ON DISEASES OF CHILDREN, AMERICAN MEDICAL ASSOCIATION, 1887:

Gentlemen:—In accord with the provisions of the motion passed by your Section on the afternoon of June 9, 1887—a motion which directed the selection of two members of the Section to visit with Prof. F. E. Waxham a patient upon whom he had performed the operation of intubation three days before, we the undersigned, your committee, visited the patient about 8:30 P.M. June 9. We found a girl, Minnie Smalley, aged 9 years, a light brunette, in the ninth day of an attack of diphtheria. Both parents, nurse and attending physicians, reported the child on the sixth day of her illness as apparently dying from dyspnœa. She was cyanotic, with thready pulse, and there were little hopes of her recovery when Dr. Waxham was called, and in a few moments succeeded in introducing a tube into the larynx with complete relief to all the threatening symptoms. A spray of diluted alcohol was ordered, or rather was permitted, and semi-solid foods directed. Dr. Waxham had not seen the patient again until the hour he called with your committee. We found the respiration perfectly easy, 28 to the minute, not noisy, an easy cough with muco-pus expectoration, voice a little hoarse and bronchial, lips red, skin dry, circulation good, pulse 125, soft, compressible, volume medium, temperature 101¼°, tongue coated with a white fur-membrane still visible over arches and columnæ, but very thin and soft; adjacent parts red and inflamed. While we were present the child ate tapioca pudding freely without any cough or spasm whatever. She had not known there was anything in her throat until the day previous when her mother incidentally mentioned the fact. The improvement had been steady from the moment the tube had been introduced.

There were two other children sick with the disease in an adjoining room, but both cases mild. Dr. Waxham suggested a little more nourishing grade of food, and announced that he would remove the tube the following day, as it was a rule with him not to leave it longer than the fourth day, even if he was required to reintroduce within a few hours, giving as a reason the liability to the development of ulcerative action, and the danger in such case of the sloughing of the unhealthy tissues with the added complications resulting from such possibilities.

[1] June 16—Patient fully recovered.

It was the privilege of one member of your committee to be present next day, June 10th about 11:30 A.M., and witness the removal of the tube, which was done in the exact manner advised by Dr. Waxham in his monogram upon intubation. The removal was accomplished with an ease, a dexterity and a skill which was a revelation to those present, a revelation which exhibited the hand and the mind of the master in his chosen art.

Still clinging to the removed tube were pieces of false membrane from an eighth to a fourth of an inch in diameter, and as thick and firm as good strong blotting paper. The child said she felt no pain, nor special annoyance during the removal of the tube, and a few moments afterward ate freely of some semi solid food. Her condition was about the same as on the previous evening with perhaps a slight increase of debility and a tendency to heart failure, but still with many favorable symptoms giving strong hopes of recovery.

On the 14th inst., *i. e.*, on the fourteeth day also of the disease, we received from Dr. Waxham the following note dated the 12th inst.: "It gives me great pleasure to report that our little patient is now out of danger. The doctor informs me that the pulse to-day is 80, temperature down, strength improving, and that he considers that there is no further danger."

This adds one more success to the operation, and we assure you it adds two earnest converts to the importance and high value of the operation as a means of tiding over the most dangerous period in a certain proportion of cases of laryngeal obstruction in pseudo-membraneous disorders. Of course it requires thorough anatomical knowledge, manual dexterity, sound judgment, and well planned collateral management, but so does every other great success in hours of extreme danger.

We believe that every gentleman who provides himself with the necessary instruments should also further prepare himself by repeated operations upon the cadaver until he has acquired the necessary skill to do the operation with rapidity and ease, thus adding largely to the possibilities of its success. The celerity with which the operation may be performed, its freedom from local injury to the diseased tissues and its promptness in relieving a threatening fatal symptom, all commend its favorable consideration, and generally its preferable selection as compared with the older and possibly (?) more brilliant operation of tracheotomy.

We believe that Dr. Waxham deserves the thanks of the profession for his untiring and persistent efforts in giving this operation, with which his name will be always associated, the consideration it deserves, and in placing it in the high position to which it belongs in the list of remedial measures in desperate emergencies.

(Signed,) GEO. WHEELER JONES, M.D.
JOHN A. LARRABEE, M.D.
Committee.

Danville, Ill., June 22, 1887.

SUPPURATIVE INFLAMMATION OF THE ANTRUM.

Read in the Section on Ophthalmology, Otology and Laryngology, at the Thirty-Eighth Annual Meeting of the American Medical Association,

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The mucous membrane lining the antrum of Highmore is liable to suppurative inflammation and a collection of pus which may partially or completely fill the cavity, if its opening into the middle meatus of the nasal cavity remains patent; but when the latter becomes closed by inflammation and swelling of the Schneiderian membrane, the pressure caused by the continued formation of pus may cause great expansion of the bony walls, and corresponding increase in the size of the cavity. This condition has been termed abscess of the antrum, but as, excepting the presence of pus, it is usually devoid of all the characteristics of an abscess of the soft tissues the term suppurative inflammation is more appropriate.

From the location of the antrum, immediately above the bicuspid and molar teeth, the fangs of which often perforate its floor; and from its more or less free communication with the nasal cavity, it would be expected that disease of its lining membrane would be frequent, resulting either from affections of the teeth, or extending from the nasal mucous membrane, which is so often inflamed. As a matter of fact, however, this disease cannot be considered common, for many physicians practice a lifetime without meeting examples of the kind. However, it is doubtless more frequent than generally supposed, for it not infrequently happens that the affection is simply called catarrh, and its real nature is overlooked for want of a careful examination. Inflammations in this locality are occasionally caused by external injury, and they are sometimes due to extension of the same process from the nasal cavity, but by far the most frequent cause is disease of the teeth. The normal opening from this cavity into the middle meatus varies from the size of a crow-quill to an opening nearly large enough to admit the tip of the little finger; in the latter condition the products of inflammation may be readily discharged, and a spontaneous cure may result without suppuration, but when the orifice is small it may readily become closed and then the pent up secretions become purulent and offensive. In the earlier part of the affection the patient is liable to experience a sense of weight in the part, or to suffer from more or less tenderness and pain in the teeth, cheek, orbit or frontal sinuses, but in some instances none of these symptoms are present, and in chronic cases they are often absent, doubtless on account of the secretions having found free exit into the nasal cavity, as the swelling of the acute inflammation subsided.

The formation of pus is usually indicated by an increase of the pain, which becomes of a throbbing character, and these symptoms are often attended by rigors alternating with flashes of heat. Together with these symptoms an unusual discharge is usually

present from the naris of the corresponding side, which may be either blown from the nostril or drawn back into the throat. This discharge is most abundant early in the morning, or at any time after the patient has been long in a recumbent posture, but it usually occurs also at irregular intervals during the day.

In chronic cases the discharge is purulent and generally exceedingly offensive—much of the annoyance which the patient experiences being due to the offensive odor and taste of the pus which trickles into the throat during sleep.

Persistent discharge, from one nostril only, is usually due either to a foreign body, or to the disease under consideration, but nasal polypi, suppurative inflammation of the ethmoidal or frontal sinuses and polypi, or malignant growths of the antrum, may cause similar symptoms.

Where pain in the region of the antrum and an offensive purulent discharge from the naris of the corresponding side are present, there can be little doubt about the diagnosis, but in all cases careful inspection of the mouth and a critical rhinoscopic examination must be made. Upon examining the naris a collection of pus will often be seen in the middle meatus, and a streak of pus may be seen running down across the middle portion of the middle turbinated body. If this is wiped away it is apt to return in a few minutes. But in cases in which secretion takes place slowly, the patient may need to keep the head erect for many hours, and then lie down with the diseased side uppermost before the discharge will return.

In many cases the inferior turbinated body is much swollen, so that it is at first difficult to thoroughly inspect the parts, but by the application of a small amount of cocaine the turgescence will be reduced, and then with the aid of a rhinoscopic speculum, reflector, and good light, foreign bodies or polypi may be readily detected or excluded from the problem of diagnosis. This done, there remains but one affection with which disease of the antrum is liable to be confounded, viz.: suppurative inflammation of the ethmoidal cells. Between these affections the diagnosis is sometimes exceedingly difficult, but in disease of the ethmoidal cells there is usually much less pain than in disease of the antrum; the discharge from the nose is less abundant, and on inspection the pus is found to trickle down at the posterior end of the inferior turbinated body instead of across its middle. It will be remembered, however, that in some cases of disease of the antrum there is little or no pain, and that in others there is little or no discharge. In cases of this variety the most important points in the diagnosis of suppurative inflammation of the autrum are:

1. If there is no discharge there is likely to be much pain from the pent-up secretions.

2. Disease about the roots of the teeth is apt to be present; and

3. The history will often point to the origin of the disease.

In a case with only moderate discharge and no pain, or history of an acute attack, the absence of diseased teeth and the position of the pus far back in the nasal cavity would point to disease of the ethmoid cells instead of the cavity of the antrum.

Polypi, or malignant growths of the antrum, can only be detected when they have protruded, or when the cavity has been opened.

The progress of the disease is usually slow, unless appropriate treatment be adopted. When the opening into the naris is completely closed the patient suffers severe and exhausting pain, the pent-up secretions cause gradual distension of the walls of the cavity, which may encroach upon the orbit, nasal cavity or palate, or which may cause marked bulging and deformity of the cheek. If left to itself the cavity may open in any of these directions. In some instances the putrid secretions that are swallowed cause serious derangement of the digestive organs and a gradual decline in health.

In acute inflammation of the antrum medical treatment by fomentations, local blood-letting, and salines, is important, but when suppuration has taken place surgical measures must be adopted. Free exit must be given to the pus, preferably through the alveolar process. When a diseased tooth is found to be the cause, it should be extracted and the opening left by its fang enlarged sufficiently to allow free drainage. Sometimes the abscess points just above the teeth at the alveolar process, and then may be opened in that position, but this is not a favorable point for the opening on account of the difficulty of keeping it patent.

If the teeth are sound it is best to draw the first molar, as its sockets are deeper than those of others, and it is the most liable to decay; but if the patient has already lost one of the upper bicuspids or molars the antrum may be entered through the space left. It has been objected to selecting this spot that the bone where a tooth has been lost some time previously is much harder than elsewhere, but this offers no serious impediment to the operation, therefore it seems unwise to sacrifice a tooth.

The opening may be made with a common trochar but a bone drill answers the purpose better. The drill may be worked by a dental engine, but this is unnecessary, as with a conical burr bone drill the opening is easily made by hand in three or four minutes. Care should be taken to hold the drill so that as it enters the cavity it may not plunge suddenly through and wound the opposite wall. The opening should be drilled on a line with the internal canthus of the eye upon the same side, which insures striking the central position of the antrum providing it is of normal shape. Occasionally the antrum varies much from the typical size and shape, and in a few instances bony septa have been found traversing it. In cases of this kind it is necessary to scrape out the partitions sufficiently to allow thorough cleansing.

It is best to make a comparatively large opening about a quarter of an inch in diameter in order that it may be easily kept free, and that drainage and washing may be perfect. During the treatment the opening should be filled with a roll of cotton or gauze to prevent the entrance of food and to delay healing until

the lining of the cavity has become healthy, or it may be kept patent by a small metallic tube which a dentist may fasten to an ordinary plate and which may be closed while the patient is eating by a small cork. After the operation the subsequent treatment of the case consists of washing out the cavity with antiseptic and astringent solutions. I have used with greatest satisfaction a spray or small injection of peroxide of hydrogen three or four times a week and a wash of listerine ℥ss—℥i to ℥i of saturated solution of boric acid twice a day. This wash should always be used luke-warm.

If there is no necrosis of bone the case may be expected to recover in from two to six weeks, though occasionally a tendency to renewed inflammation may make it expedient to keep the opening much longer.

I have seen six cases of this disease.

Case 1 was that of a man about twenty-five years of age who came to me six or seven years ago. He suffered no pain and complained only of catarrh. There was a free opening into the naris and the discharge was not very abundant. The annoyance was so slight that he disliked to have the antrum opened. I saw him about five years later and found him still in the same condition. He had done nothing for it and still objected to the necessary operation.

Case 2. Mrs. A. D. C., æt. 44, came to me from Wisconsin two years ago. For one year had been troubled with discomfort and often pain in the left cheek, which became worse and swelled whenever she took cold. She was also annoyed by a purulent discharge from the nostril and into the throat. I found that there had been a spontaneous opening into the mouth which had left a small fistula, but it was so small that pus constantly filled the antrum and escaped from the nose. I had the cavity syringed out through this small opening twice a day with a saturated solution of boric acid. In three weeks the purulent discharge had entirely ceased, but the washing was continued less frequently for four or five weeks longer. The patient had suffered slightly for eight years with rheumatism, which may possibly have been the cause of the disease in the antrum. For this she was given small doses of iodide of potassium. She returned to her home apparently perfectly cured and I have reason to believe there has been no return of the disease.

Case 3. Mrs. J. L. F., æt. 48, came to me in February of this year complaining of pain in the left cheek with some purulent discharge into the left naris. The trouble had begun four years previously when she had had her teeth drawn. I found that there had been a fistulous opening near the site of the canine tooth, but of this there now remained only a *cul-de-sac* about three eighths of an inch in depth and an eighth of an inch in diameter. Through this I perforated the antrum with a drill, and subsequently washed the cavity with peroxide of hydrogen and had her inject it twice a day with a warm saturated solution of boric acid. At the end of three weeks all purulent discharge had ceased and the patient felt perfectly well. She then returned to her home with instructions to continue the wash for two or three weeks.

Case 4. E. R., æt. 34, came to me March 8th, 1887. He had suffered greatly with the nasal symptoms of suppurative inflammation of the antrum for about two years, though during a part of that time he had been free from the symptoms. This had been caused by a diseased tooth which the dentist had tried to save until six months previous to his consulting me—when it had been drawn. Subsequently he seems to have nearly recovered, but for two months he had been greatly distressed by the offensive discharge into his throat. I opened the cavity with a large drill at the site from which the first molar had been removed and subsequently washed the cavity as already recommended. At the end of three weeks there was very little purulent discharge but the opening was closing rapidly. I did not see the patient for a week afterward, but he then reported that two or three days after his last visit the opening closed completely and remained so a few days when he again began to have pain in the cheek. I then enlarged the canal with the same drill and renewed the treatment. Three weeks later the secretion of pus had entirely ceased. There was no secretion of pus for a week afterward, when he caught a bad cold and the cavity filled with muco pus in thirty-six hours, during which time he had omitted to remove the pledget of cotton from the opening. In this case the inferior turbinated body was greatly swollen and the opening into the nostril from the antrum comparatively large. I thought that the secretion from the nose had filled the cavity, I therefore cauterized the turbinated body to reduce its size. Continued the same local treatment and directed him to have a tube fitted to the opening to keep it patent for several months. He did not follow this advice, but allowed the opening to close; however, there has been no purulent discharge since.

Case 5. Mrs. I., æt. 36, sent to me from Minnesota March 22, 1887. Suppurative inflammation of right antrum, due to a diseased tooth, of a year's duration. I opened the antrum as in the last case and used the same local treatment. At the end of three weeks all purulent discharge had ceased and it has not returned. But the cavity was kept open for two months and then she was directed to leave out the cotton and allow it to heal. Recovery seems perfect.

Case 6. A young woman æt. about 25. Has complained of catarrh for many months, and recently of swelling of the right cheek and a gum boil near right canine tooth. The symptoms and signs in this case are very indistinct, but Dr. Brophy confirms my suspicions of suppurative inflammation of the antrum. I expect to open the cavity soon.

64 State Street, Chicago, June 9, 1887.

SOME CASES OF COMPOUND FRACTURE; WITH REMARKS ON TREATMENT.

BY J. A. WESSINGER, M.D.,

OF HOWELL, MICH.

MEMBER MICHIGAN STATE MEDICAL SOCIETY; CORRESPONDING MEMBER DETROIT MEDICAL AND LIBRARY ASSOCIATION.

Case 1.—About noon on June 19, 1886, H. M.,

æt. 32, married, railroad conductor by occupation, was thrown from his train immediately in front of a flat car which was backing up at a rather high rate of speed, both wheels of the rear truck passing over patient's legs below the knee. I saw the injured man about forty minutes after the accident. He was suffering somewhat from shock, from which, however, he soon rallied under mild stimulation. He was placed in a large room on the first floor at his boarding house. A bed having a hard mattress was used, and all furniture removed from the room except a table and chairs. Preceding the anæsthetic I gave a hypodermic injection of ⅙ gr. morphia. Anæsthesia was then begun with pure chloroform (Squibb's). In fifteen minutes the patient was thoroughly under the influence of the anæsthetic. An examination of the injured parts was now begun. After removal of the clothing we found a compound comminuted fracture of both bones of the right leg, and extreme laceration of all the important soft tissues; both the anterior and posterior tibial arteries were severed, but hæmorrhage had not been severe. The tibia and fibula of the left leg were fractured through the upper third. On consultation with other surgeons present it was decided to amputate the right leg below the knee; the left leg to be treated with suitable splints. After adjusting the Esmarch bandage, I performed bloodless amputation by the antero-posterior flap method, four inches below the right knee. The instruments, sponges, and ligatures used during the operation, were kept in a 10 per cent. solution of carbolic acid.

After the amputation was completed the stump was irrigated with bichloride solution, 1 : 1,000, then the flaps brought together with silver wire, a drainage-tube inserted, and the stump dressed with dry antiseptic gauze held in place by a few turns of the roller bandage. The fracture of the left leg was then reduced and suitable wooden splints adjusted. By this time the patient had recovered from the anæsthetic, another hypodermic of ⅙ gr. morphia was given, and our patient left to rest in a clean bed which had been prepared during the operation. Everything looked favorable for a good recovery. During the evening of the same day I saw patient again; he had taken some light food; bowels and kidneys had operated normally. He seemed to feel cheerful, and congratulated himself on his escape from more serious results during a railroad accident.

June 20. At 9 A.M. I saw patient again. Temp. 99°; pulse 90, full, soft, regular; some pain at seat of fracture, no pain in stump. Patient had slept well after midnight on having taken ⅛ gr. morphia. Had taken breakfast of beef-tea, eggs and milk. Patient cheerful and comfortable. At noon of this day I received notice, purporting to have come from the patient, that my services were no longer needed and that other physicians had taken charge of the case. Nothing was said, and the man left to his fate. I afterward learned, to my chagrin, that the methods by which the patient passed into other hands were much more unique than honorable. Suffice it to say that all antiseptic methods of treatment in this case were now discarded, the stump was left open, and simply a cold water dressing applied, which was renewed daily. The fracture was put up in plaster-of-Paris, *no cotton batting was used*, simply a drawer leg between the plaster and the man's skin (a most lamentable and inexcusable blunder). I soon heard that the patient was going from bad to worse, the limb that had been "done up" in a plaster-of-Paris vice (for such it was in this case) became intensely swollen, the foot discolored, and finally, at the earnest solicitation of the patient, the plaster was removed, when a large slough presented itself on the inner aspect of the limb over the seat of fracture. This sloughing surface separated, and the injury was thus transformed from a complete to a compound fracture with very unhealthy condition of tissue surrounding. The cold water treatment was continued as before. Condition began to be more unfavorable from day to day, until the twelfth day after injury, when a wild delirium developed, with a high temperature (104.5°, according to the nurse), some emesis, anorexia, diarrhœa, profuse sweating, granulation process in stump has ceased, sloughing process in left leg extending, and emitting a very offensive odor.

At this time Dr. W. J. Herdman, of Ann Arbor, Mich., surgeon-in-chief of the road, saw the patient, and gave a very unfavorable prognosis, as the man was suffering from advanced septicæmia. At the earnest solicitation of the relatives of the patient, I saw him again on the twenty-seventh day after the accident. The only thing to do at this stage of the case was to pay the last tribute of relief to a dying man, and I so informed the friends. I found the patient almost pulseless, markedly tympanitic, a low muttering delirium. Temperature 97°, involuntary green stools, urine offensive. I also found a large abscess in the left thigh which, on being incised, discharged a large quantity of fetid pus. Another large abscess was detected between the muscles above the crest of the ilium on the right side; this was filled with a mass of stinking pus. The stump had not healed and was sloughing, the fractured bones in the left leg were bare, and the upper fragment of the tibia was denuded of periosteum about 1½ inch back from line of fracture. The bones had not united and were being rapidly disintegrated at the injured points. I irrigated the wounds thoroughly with bichloride solution (1 : 1,000), and put the patient on brandy, quinine, and digitalis. However, he did not rally, and finally died on the thirtieth day from date of intury. He was markedly jaundiced, and probably the subject of pyæmic (metastatic) abscess of the liver. No autopsy.

Case 2.—C. R. A., male, married, æt. 24, has always been healthy. By occupation a brakeman on railroad. About noon on June 29, 1886, while unloading gravel from a construction train, the wire cable struck the patient on the right leg with sufficient force to produce a compound comminuted fracture of the tibia in the lower third. I saw the patient about ten minutes after accident. His condition at this time was as follows: No shock, very little hæmorrhage, large lacerated wound in lower third of right leg, fragments of bone exposed to view. The patient having been anæsthetized, and the wound

thoroughly irrigated with a 1 : 1,000 bichloride solution, I proceeded to repair the injured parts. Found the upper end of the tibia broken squarely across, while the lower part was fractured obliquely, very ragged, and denuded of periosteum to about one inch below the line of fracture. All fragments of bone and lacerated tissue were carefully removed, the bone denuded of its periosteum was exsected, and a free opening made through the limb posteriorly for drainage. All operative measures having been completed, the wound was again irrigated with the bichloride solution, a drainage-tube inserted, and the wound dressed with moist sublimated cotton. The limb was now placed in an ordinary fracture box having a slot over seat of injury, and moderate extension applied. The combined length of bony fragments removed was 1¼ inch. The wound began to repair immediately, the patient had no untoward symptom, the temperature reached 101° on but two occasions, and at eight weeks from date of injury the patient was able to walk on his foot. The moist sublimated dressing in this case was renewed every twelve or twenty-four hours, and continued until the wound had been filled in with granulations, when the moist dressing was withdrawn and dry boric acid dressings substituted. This was continued until the healing process in the wound was complete. This man began work again as watchman at a railroad crossing ten weeks from date of injury; here he received a slight injury at the point of fracture, which, however, was soon repaired by rest to the limb, by means of a plaster splint adjusted by Dr. W. J. Herdman, of Ann Arbor, where the patient was living at this time. I saw the patient about two weeks ago, when he was in all respects as sound as ever, although a shortening of about ¼ inch was still present.

Case 3.—Wm. P., æt. 55, married, carpenter. Has never received a severe injury, but is addicted to the use of alcoholic drinks. On August 21, 1886, he fell a distance of twenty-five feet, striking first upon the heel of his left foot, then upon the left knee. I saw the patient about ten minutes after the injury. On examination under an anæsthetic, I found dislocation outward of the astragalus, with Pott's fracture of the fibula, and a compound complicated fracture of the tibia and fibula in the upper third of the same leg; the injury at this point consisting of a transverse fracture of the tibia and fibula three inches below the knee-joint, and also a longitudinal fracture of the tibia running into the joint. The outer and inner tuberosities of the tibia were both distinctly movable. Over the line of transverse fracture was a deep penetrating wound caused by a large nail or other pointed object. Hæmorrhage was quite severe; patient suffered somewhat from shock, from which, however, he soon recovered. I reduced the dislocation at the ankle joint and placed the lower limb in Koehler's adaptable splint (carbolated). Adjusted the fractures above, and irrigated the wound with 1 : 1,000 bichloride solution. The whole limb was then placed in a fracture box, with moderate extension and counter-extension, and the wound dressed daily with moist sublimated cotton.

On the third day after date of injury the temperature was 103°. Pulse 110, hard and bounding. I began to feel fearful of my patient. Suppression of urine and fæces. I used a Nélaton's catheter, which relieved the bladder, and gave a brisk cathartic. On the fourth day the temperature had gone down to 100°, pulse 110, patient feeling better, circulation in foot good. From this date temperature and pulse gradually went down until the end of the second week, when both were normal, where they remained until recovery. Patient began to eat; bowels regular; sleeps well. This course was not materially changed until November 10, 1886, or ten weeks from date of injury, when patient began to walk with crutches; and at the present writing the patient's limb is practically as good as ever, although there is about one-half inch shortening, with some contraction of the plantar fascia.

Case 4.[1]—Male, æt. 26; married. On September 8, 1884, while riding over a bridge on a traction threshing engine, the bridge suddenly gave way, precipitating engine and patient into the river below. In this accident the right limb of the patient was caught between the heavy traction chain and the forward wheel of the engine, thus producing an extensive lacerated wound, with an oblique fracture of the tibia at the middle of the lower third of the leg. I saw the patient shortly after the accident, and found him suffering somewhat from shock, and faint from the loss of blood. Several fragments of bone were removed, and the bleeding vessels controlled by torsion and ligature. Splints were adjusted with an aperture over seat of injury, and the wound dressed with carbolized cotton. This was laid aside on the third day after injury, owing to symptoms of carbolic acid poisoning, and iodoform dressings used instead, which were renewed daily. The temperature in this case did not go above 102°, and no untoward symptoms developed from day of injury until final recovery, with the exception of the slight toxic effects of the carbolic acid. The patient has a sound limb, and is able to follow his vocation as a farmer.

Case 5.—Male, æt. 14. On October 16, 1886, he sustained a compound dislocation of the ring finger at the metacarpo-phalangeal articulation. The injury was caused by a base-ball striking the end of the finger with great momentum, throwing the phalanx out so that it rested on the dorsum of the hand. I saw the patient about ten minutes after the accident. Very little hæmorrhage. Advised amputation, but this was refused by the parents. I then reduced the dislocation, irrigated the wound with bichloride solution, applied a splint to the palmar surface of the finger, and dressed the wound with moist sublimated cotton. This dressing was renewed daily, with bichloride irrigation. The wound began to heal immediately, and on November 23 the patient was discharged cured, with a useful though somewhat deformed finger.

Remarks.—In *Case 1* we have a man than whom none had better prospects of recovery at the beginning, yet as soon as antiseptic treatment was withheld the patient began to fail. His wounds ceased

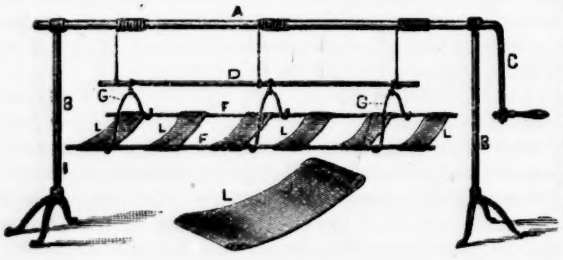
[1] Reported in Medical Age, vol. iii, p. 292.

to heal, became very fetid, and he went down under the devouring fire of septic poison. In the other four cases antiseptics were rigidly adhered to, the wounds were free from odor, healthy in appearance, and the process of repair went steadily on to recovery. In *Case 1*, could the exact condition of the injured bones in the left leg have been known, a synchronous amputation might have saved the patient's life. In treating these severe injuries the following are some of the precautions necessary:

1. Close attention to all the details. Keep all general attendants away from the wounds. 2. Absolute rest at the point of injury. 3. Look closely after the general health of the patient. Don't take anything for granted. 4. See that a proper mental and physical balance is maintained.

Absolute rest at the point of injury cannot be too strongly emphasized, since success or failure in treatment depends largely on the attention that is given to this principle.

In this connection I desire to call attention to a device which has been of inestimable value to me in the treatment of these cases. This apparatus is original with Dr. W. J. Herdman, of Ann Arbor, Mich., and is known as "Herdman's Lifting Device." This apparatus is simple in construction, durable and cheap. It is made of ordinary gas-pipe and wrought iron, and any ordinary machinist can make one. One man can lift a patient from the bed without causing any pain whatever, and at the same time greatly add to the comfort of an injured person, while a change of bedding or other clothing is being made. The following cut will fully illustrate the construction of the device. One thing to be remembered in constructing this device is, that the cross-bands must be the same in length as the distance between the cradle-hooks.



HERDMAN'S LIFTING DEVICE.

A, cross bar; B, legs; C, crank; D, cradle; L, L, L, L, cross bands, loop stitched at ends for sliding bar; F, sliding bar; G, cradle hooks. The device should be long enough to swing over the bed. The cradle is then lowered, the bands passed under the patient, the sliding bars passed through the looped ends of bands, then into the hooks, when a few turns at the crank lifts the patient bodily from the bed.

Finally, in the language of a well-known writer:[1] "In the light of the researches of experimenters in the field of bacteriological science, and the experience of those who, acting upon the suggestive results derived from these experiments, treat wounds antiseptically, in my opinion, the surgeon who does not take into account every possible source of danger that may overtake his patient, including in this the noxious influences arising from the entrance of germs into the tissues, is criminally negligent, and directly responsible, both to his own conscience and to the world at large."

[1] Geo. R. Fowler, M.D., in New York Medical Journal.

I am greatly indebted to Dr. H. N. Spencer for valuable services rendered during the treatment of these cases.

ON THE TREATMENT OF FELON WITHOUT INCISION.

Read in the Section on Medicine, Materia Medica and Therapeutics, at the Thirty-Eighth Annual Meeting of the American Medical Association, June 7, 1887.

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The teachings of instructors in surgery, and also those in the text-books on the subject, are all to the effect that felon, paronychia, or whitlow, will require sooner or later a free, deep incision, even to the bone, and that in the majority of cases the sooner this is done after the diagnosis is made, the better. I believe, also, that careful inquiry would show that this is the almost universal practice both of those who follow surgery more particularly, and of general practitioners. But little is found in writings in regard to the medical and internal treatment of these cases, other than the suggestion that tonics are often needed; and the almost universal recommendation is that poultices should be applied, both before and after the incision.

Having had quite a considerable number of cases of felon under my care in public and private practice, some of them being very severe, and having pursued a very different course of treatment from that usually followed, as far as I can learn, I beg to present the matter briefly, in order that others may make trial of the same methods, which, as I believe, have advantages worthy of consideration.

I will not attempt to enter into any anatomical or pathological study of the parts concerned, or of the affection under consideration, but in order not to be misunderstood I wish to state that by felon and whitlow I refer to the cases familiar to all, in which there is deep-seated inflammation, mainly of the ends of the fingers, tending to penetrate even to the bone, and ultimately, if unchecked, to cause necrosis of the same. Some of my cases have been light and have remained superficial; others have been first seen when the inflammation had already penetrated deeply, when the finger was hot, tense and hard, and exceedingly painful on pressure, and even after the patient had already passed sleepless nights with the throbbing pain. But for many years I have never incised a case, other than a possible slight prick, without pain, into dead skin after the pus had become superficial; nor have I ordered a poultice for such a case within the same period of time.

While a certain number of cases of whitlow seem to have their origin deep in the tissues of the finger, or even in the periosteum, in the majority of cases the inflammation appears to originate, and probably does, in a relatively superficial injury, as a prick of a pin, or needle, or nail, a scratch, or other appar-

ently trivial accident, to which little or no attention is paid at the time. As is well known, when the inflammation has once started it proceeds with considerable rapidity, and three or four days after its beginning the patient may be suffering agony from the deep-seated, tense, throbbing pain, and the entire tissues of the finger are found to form a firm, hard mass, exquisitely sensitive to pressure.

The reason for the ready and rapid extension of the inflammation from the superficial to the deep structures is undoubtedly found in the anatomical peculiarities of this part, which consist in the existence of fibrous threads extending from the skin to the periosteum, binding all the parts firmly together; along these connective tissue bands the inflammation travels from without inward with ease, and it is also because of the existence of these connecting fibres that, under the treatment now proposed, in a deep-seated inflammation, originating even in the sheath of a tendon or the periosteum, the pus may find exit without causing great damage, as will be presently shown.

As an element in the production of whitlow the general condition of the patient must always be taken into consideration, and especially that unknown but still recognized state manifested by the tendency to form pus, the pyogenic habit, as it was formerly called. Every prick of a needle or nail in the end of the finger does not result in a felon; nor in a given number of subjects could it be produced in any great proportion of instances by any amount of injury to the finger tip; nor can it be produced at will even in those who are ever so much run down in health, as in so many other conditions of disease, some predisposing cause which causes what might otherwise be an innocuous prick to become the beginning of a serious inflammatory process. Its localized phenomena would almost point to an infectious origin, received with the wound, were it not that many cases originate deeply without external puncture.

The treatment which I would advocate, and which has proved valuable in my hands, consists both of general and local measures, and has for its aim the checking of the inflammatory and suppurative process rather than the encouragement of suppuration, as is ordinarily done by poultices.

Patients even with a beginning felon are commonly found to be in a state of lowered vitality, often with more or less of a sluggish condition of the digestive organs, coated tongue, loss of appetite, etc. Unless it is contraindicated I generally begin the treatment with a mild cathartic, the following being that commonly employed:

℞. Ext. colocynth comp.
Mass hydrarg.....āā gr. x
Pulv. ipecacuan.... ..... gr. ii
℥. Div. in pil. No. iv. Sig: Take two at night and two on the second night after.

A tonic is administered from the first, one containing iron being preferred; that usually given is a combination known as Startin's mixture, which has considerable power in controlling inflammatory affections of the skin. The formula of this is as follows, the proportions being somewhat altered to suit individual cases:

℞. Magnesii sulphatis..... ℥i
Ferri sulphatis..... ..... ℥i
Acidi sulphurici.....dil. ℥iv
Syr. zingiberis..... ℥i
Aquæ, add..... ℥iv
℥. Sig: Teaspoonful in water, through a tube, after eating.

In addition to this it is my custom to administer the sulphide of calcium (calx sulphurata) from the beginning to the end of the treatment. I usually give it in the form of ¼ grain gelatin coated pills, one being given every two hours irrespective of food or other medicine. In order to have any good effect from this latter drug it is essential that it should be fresh and pure, for, as is well known when exposed to the air it rapidly loses its free sulphur and becomes converted into the inert sulphate of zinc, or gypsum. It cannot, therefore, be well given in powders or tablets, nor even in extemporaneous pills, but is best administered in those well coated with gelatin, which preserves the drug unaltered; it is well, however, to test the pills by biting them, when the characteristic odor of sulphuretted hydrogen becomes at once noticeable if the article is good.

Some attention to the diet should also be paid in these cases, and specific directions should be given. Alcohol in all forms should be absolutely interdicted, and the malted liquors appear to be also very harmful. The diet should be full and nourishing, but not stimulating. Milk is often given, sometimes in the form of punch and egg-nog, but, as I have elsewhere explained very fully, I believe that milk is not a desirable article to take in connection with other food, and my constant direction is that it should be avoided at the meals. On the other hand, it serves a most admirable purpose in raising the vital tone of these patients if given separately and alone, in the interval between the meals, preferably one hour before each meal, and late at bed time, avoiding, however, taking it within half an hour of the granules, or of any other substance in the stomach. Tea and coffee may be taken in moderation, but unnecessary and indigestible articles should be avoided.

The local treatment of felon which I have followed has the merit of great simplicity and is one which can be readily followed out by every one. It consists simply in the constant any very thorough envelopment of the affected part in a protective ointment from the beginning to the end of treatment. The application used is the diachylon ointment of Hebra, which, when properly prepared, forms a most agreeable and soothing dressing.

Of late years it has been suggested to make the diachylon ointment by melting lead plaster with various oils, or vaseline, and much that is supplied on prescription will be found to be prepared in this manner. But this by no means answers as well in many conditions of the skin as that prepared according to the original formula given by Hebra, probably because the added portion of the oil has not undergone decomposition with the litharge. I am therefore very particular to have the ointment prepared according to the original formula, which is as follows:

℞. Olei olivarum optimi..... ..... ℥xv
Plumbi oxidi..... ℥iij ℥vj
Olei lavandulæ..... ..... ℥ij

℔. Add the oil to two pounds of water and heat it with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold, and the oil of lavender then added. In winter a slightly larger quantity of oil is required to make a soft ointment.

When properly made according to the above directions the ointment is soft and unctious, and not very sticky. It is to be spread upon the woolly side of lint *very thickly*, even a quarter of an inch or more in thickness, so as to completely envelop the end of the finger in a thick mass of the ointment; this is then lightly bound on and left undisturbed as long as possible; generally it is best to renew the application twice daily, and if there is no discharge the same dressing may have fresh ointment spread upon it, and be replaced quickly. The affected part should not be handled at all, nor the ointment scraped off even, the idea being simply to keep it continuously in the mass of bland, protective and absorptive ointment, to allow the inflammatory process to subside.

The first application of the ointment is described as being soothing and pleasant in the extreme; in mild cases just beginning it allays the irritation and pain at once, and even in those who had had sleepless nights from the pain, I have had them tell me that the relief was almost complete, and that they had slept the night after the application although in one or two instances the relief was more gradual.

Under the treatment above described some suppuration commonly takes place. In lighter cases, where the inflammation has begun superficially, one or more small points appear beneath the epidermis, which either break themselves or may be opened absolutely without pain through a slight prick in the dead covering. In those where the disease has begun more deeply, or where it has penetrated to some depth before treatment, the progress is more slow, and a week may be taken before the pus comes near the surface; but then it shows itself also in one or more points, never very large, and the discharge may be hastened by a slight prick through the dead epidermis.

In one or more cases under my care small spiculæ of bone have been discharged, but still the case progressed satisfactorily without deep incision. After the opening the ointment is to be still continued in the same manner, the dressings being renewed more often if there is much discharge, until finally the openings close and the parts resume a normal condition.

The duration of the treatment of these cases compares very favorably with that of those treated in the ordinary manner with poultices and incision. I do not think that any of them have been obliged to use the ointment more than three weeks, and in the milder cases all trouble has sometimes subsided in a week or ten days.

My first cases were treated in this manner fully ten years ago, since which time I think I have applied the treatment to a dozen or more cases in public or private practice. I cannot, of course, vouch for all the cases I have seen, as to the final results, as all know the uncertainty attending out-patients in hospital practice; but I know of the complete success in a number of this class, and could give histories from notes of cases seen in private practice if time permitted.

A single case may be briefly mentioned: Mr. J. B., a gentleman aged 38, is now under treatment for another trouble, two years after his felon, for which I treated him in this manner. In this case there had been intense, deep pain, which was relieved almost entirely by the ointment. About a week after beginning treatment pus was discharged and several spiculæ of bone followed, but all healed quite rapidly, and now, when examined recently, the scar on the right forefinger is seen to be supple, and the integrity of the finger perfectly preserved.

I am quite aware that there may be cases in which this plan of treatment may not be applicable, but such have not as yet come under my observation. I shall look with interest for the experience of those who have opportunities of seeing more cases, and more severe ones, perhaps, than have come under my care, and feel confident that if the plan of treatment I have sketched is carried out thoroughly, it will be found to give good results certainly in a share of cases, and will certainly prove more acceptable to the patient than the annoying application of poultices and the much dreaded incision with the knife.

DISCUSSION.

DR. NORMAN BRIDGE, of Chicago, had used vaseline, cosmoline and belladonna applications.

DR. NORTH, of Waterbury, had immersed the finger in a strong solution of iodine, where pus was not already formed, with good results. He immersed the finger three times a day for five minutes each time.

DR. POWELL, of Indiana, had used oleate of morphia to relieve pain, keeping some constantly applied. It has given great relief.

DR. ZEISLER, of Chicago, said that ichthyol relieves pain to a great extent, even if it does not prevent suppuration.

DR. LOSS, of Pennsylvania, has dipped the finger in hot water for a half hour and then dipped it in collodion.

DR. C. C. P. SILVA, of Chicago, said that water at a high temperature will prevent suppuration if abscess is in its incipiency and superficial. Water will not do so if the process is deep seated.

DR. PORTER, of New Hampshire, had used water and iodine. For last five years he has used iodine and then pressure, by a plaster and roller bandage, using as much pressure as the patient will bear without severe pain. Pressure on the muscles may prevent congestion and suppuration.

MEDICAL PROGRESS.

TROPHIC NERVES.—The actual demonstration of the existence of trophic nerve fibres, apart from vaso-motor fibres, has not until recently been made, although many evidences pointing to that conclusion have been put forward. DR. JOSEPH, of Berlin, in a number of experiments on cats, produces facts which go to prove the existence of trophic nerve fibres in the peripheral nerves. The complication of vascular changes induced by the removal of the vaso-motor fibres from a part must be excluded in order to prove definitely that any nutritive changes occurring after section of its nerve are due to the loss of trophic influence. These conditions were carefully considered, and in order to avoid any vaso-motor changes, the second cervical nerve was selected for section, which, as will be seen, contains no vaso-motor fibres. This nerve was used in all the experiments. Mere section of the trunk of the nerve produced no effect, as reunion rapidly took place, so that it became necessary to remove a considerable portion of the trunk to prevent this occurrence. In some of the animals the ganglion on the posterior nerve-root was also removed. The changes induced were limited to the area of distribution of the nerve, and in those where the ganglion was removed similar changes occurred in the cutaneous area of distribution of the fifth cranial nerve of the corresponding side, coming on in different animals at a period varying from five to twenty-seven days. The changes consisted in loss of hair, at first localized, afterwards gradually extending, situated above and behind the ear where the trunk was only severed; above the eye and over the cheek, where part of the trunk and the ganglion on the posterior root were removed. After a time complete baldness and a shiny atrophied state of the skin made their appearance. No increased vascularity, inflammation, or any other change whatsoever could be discovered in the skin. The hair was examined for parasites, but none could be found. Microscopic examination of the skin failed to detect anything beyond atrophy of the hair follicles; there was no evidence of inflammatory or other changes. From these experiments Dr. Joseph concludes that trophic nerve fibres exist apart from vaso-motor fibres, and entirely independent of them; and he explains the similar changes in the area of distribution of the fifth cranial nerve by assuming that it derives its trophic supply from the ganglion on the posterior root of the second cervical nerve from which fibres join the ascending root of the fifth.—*Virchow's Archiv*, Bd. cvii, Hft. 1.—*The Practitioner*, July, 1887.

THE ACTION OF ACONITE UPON BODILY TEMPERATURE.—DRS. LAUDER BRUNTON and J. THEODORE CASH have, in a research upon the action of aconite upon bodily temperature ("St. Bartholomew Hospital Reports," vol. xxii.), reached the following conclusions:

1. That in pigeons aconite acts as an antipyretic, both in large and small doses.

2. This antipyretic action is exerted whether their body temperature be normal, or be artificially raised, or artificially reduced, at the time of the injection of the drug. In all cases the injection causes the temperature to fall.

3. This fall is usually less in birds which have been artificially cooled than in birds whose temperature is normal, or has been raised artificially.

4. The action of the drug is apt to be modified by individual peculiarities in the birds which we are at present unable to explain.

5. The temperature returns more rapidly and completely towards the normal when the birds which have got aconite are kept in a warm place, although the primary fall induced by the administration of the drug may have been as great as, or greater than, that observed at medium temperatures.

6. A repetition of the dose after the effect of the first one has passed off causes a fall which is apparently uninfluenced by the first dose.

7. It is occasionally noticed that a large dose may cause a fall of temperature which is smaller but more prolonged than that caused by a smaller dose.

8. In guinea-pigs cooling appears to retard the fall of temperature caused by the drug, and also to retard the return to the normal.

9. The temperature of animals exposed to a heated atmosphere is but little affected by aconite; in fact, large doses may diminish the resistance of the animal to the effect of external heat, and cause the temperature of an animal to rise higher than that of one to which no aconite has been given.

10. If the animal be exposed to cold when the drug is administered, the fall of temperature is both more rapid and more extensive than in the normal animal.—*The Therapeutic Gazette*, April, 1887.

HÆMOGLOBINOMETRY.—In the *Correspondenz Blatt für Schweizer Aerzte*, No. 10, 1887, p. 299, Dr. Herman Sahli, of Berne, writes that, having found Gower's hæmoglobinometer practically useless in artificial light, in consequence of the apparatus having too high figures under such conditions, he has prepared a new standard mixture of picric acid and carmine, which, under artificial illumination, has the same optical properties as a 1 per cent. solution of hæmoglobin. In daylight the color of the two solutions is quite different. When the comparative procedure is undertaken, the tubes (one containing the blood to be examined, another containing Sahli's solution) must be placed against the white globe of a petroleum lamp or against a sheet of thin white paper held between the tubes and a candle. A series of control experiments showed that the results obtained by examining the blood with Sahli's solution in the evening, were almost identical with those given by the usual method in daylight.—*The British Medical Journal*, July 9, 1887.

THE TREATMENT OF LUPUS BY INJECTIONS OF CORROSIVE SUBLIMATE.—DR. INGINIO TANSINI, of Lodi (*Gazetta degli Ospitali*, June 12th), narrates the treatment of a case of lupus of the nose and face by

means of repeated injections of corrosive sublimate. He began with a weak solution: corrosive sublimate 50 centigrammes, distilled water 100 grammes. This produced no reaction of any kind. A stronger solution—corrosive sublimate 1 gramme, distilled water 100 grammes—was then used. This produced some tumefaction and œdema in the neighborhood of the punctures, and slight suppuration in some of them. Some fourteen or fifteen injections of a few drops were practised. Improvement soon became marked, and eventually all traces of the disease disappeared, the only marks left being those of the punctures in which suppuration had taken place. Dr. Tansini was led to try these injections by the following considerations: 1. That lupus is a form of tubercle. 2. That the bacilli are few and have no tendency to diffuse themselves. 3. That corrosive sublimate has proved certainly destructive to bacilli. He claims advantages for this method on account of lessened pain and disturbance and superior cosmetic results.—*The Lancet*, July 9, 1887.

THE FUNCTION OF THE URETERS.—A. SAMSCHIN, after referring to observations made by others in cases of exstrophy of the bladder and vesico-vaginal fistula, reports his own experiments in a case exhibiting a large recto-vesico-vaginal fistula, in which, with the aid of a speculum, he was able to expose the openings of the ureters plainly to view. His conclusions are as follows:

1. Contraction of the ureters takes place in both man and the lower animals in a peristaltic manner. Each contraction results in the discharge of a variable quantity of urine.

2. The contractions at the vesicle orifices of the ureters do not take place synchronously.

3. The number of contractions observed at the orifice of a ureter in a given time is not constant, but is found to vary with each observation.

4. The total quantity of urine discharged by each ureter in a given time varies, as well as the average quantity discharged by each in a single contraction; the latter quantity varies between 8 and 2 ccm.

5. The maximum of quantity discharged by a single contraction amounted to 4 ccm.

6. No increase in the number of contractions was observed to take place after the copious injection of fluids.—*Centralbl. f. Gynäk.*, No. 19, 1887.

SEDATIVE ACTION OF ANTIPYRIN ON THE SPINAL CORD.—M. CHOUPPE, at a recent meeting of the Société de Biologie, described experiments which confirm those of Germain Sée in regard to the diminution of reflex excitability by antipyrin. M. Chouppe's experiments consisted in attempts to neutralize the convulsive action of strychnine by antipyrin. In this he was successful. With a dog to whom strychnia had been given in doses that produced convulsions so severe as to make death imminent, it sufficed to use 2 grains of antipyrin hypodermically to render breathing once more regular and natural.

In the discussion which followed M. Gley called attention to the well known fact that large doses of antipyrin produced convulsions similar to those of strychnine poisioning, and asked how this fact was compatible with a lessening of reflex excitability in the cord. M. Brown Séquard suggested that the opposing action of antipyrin to strychnine might be similar to the opposing action of different bromides and some other substances. For instance, bromide of potassium alone will produce bromism which the same dose of mixed bromides will not.

M. Laborde claimed that as a general rule it was true that substances that in small doses were anticonvulsive, in large doses were convulsives, and vice versa.—*Semaine Médical*, July 6, 1887

SIMPLE METHOD OF ARTIFICIAL RESPIRATION.—In the *Brit. Med. Jour. (London Med. Record)*, MR. J. A. FRANCIS describes a simple method of artificial respiration which, he alleges, combines all the advantages of the Marshall Hall, Sylvester and Howard methods, without any of their disadvantages. The plan is as follows:

The body of the patient is laid on the back, with clothes loosened, and the mouth and nose wiped. Two bystanders pass their right hands under the body at the level of the waist, and grasp each other's hands, then raise the body until the tips of the fingers and the toes of the subject alone touch the ground; count fifteen rapidly; then lower the body flat to the ground, and press the elbows to the sides hard; count fifteen again; then raise the body again for the same length of time; and so on, alternately raising and lowering. The head, arms and legs are to be allowed to dangle down quite freely when the body is raised. The author alleges that this method is most successful, and is so simple that any one can perform it without any teaching.

ADMINISTRATION OF PHOSPHORUS. — SOLTMANN recommends an oily solution, 1:500. Gr. iij of phosphorus are dissolved in ℥iij ⅛ of oil of almonds over a water bath. If the phosphorus has been previously dried thoroughly, and the process carefully conducted, no phosphorus is deposited. We may order:

℞. Phosphorus..... gr. ⅙
Cod liver oil..... ℥iij ⅛ ♏.
S.—One teaspoonful daily.

Or the following formula may be used:

℞. Phosphorus..... gr. ⅙
Oil bitter almonds..... ℥ijss
Distilled water..... ℥xx.
Gum arabic..... ℥ijss
♏. Make an emulsion.
S.—One teaspoonful daily.
—*Therapeutische Monatshefte*, May, 1887.

APOMORPHINE AND MORPHINE IN WHOOPING-COUGH.—DR. P. F. FEDOROFF, of Arkhangelsk, states (*Proceedings of the Arkhangelsk Medical Society*, part 2, 1887, p. 92) that he has obtained good results in whooping-cough by the internal use of the following mixture:—℞ Morphin. muriatic. gr.ij.; apomorphin. muriatic. gr.j; acid. muriatic. ♏ss; aq. destill. ℥viij, M.D.S., a tablespoonful four times a day. The paroxysms are lessened both in number and frequency after the first few doses of the mixture.—*The British Medical Journal*, July 9, 1887.

THE
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THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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LARYNGEAL SYMPTOMS FROM PRESSURE.

In a lecture on "Some Points in Relation to the Diagnostic Significance and Therapeutic Indications of Laryngeal Symptoms resulting from Pressure of Aneurisms upon the Vagus and Recurrent Laryngeal Nerves," DR. DAVID NEWMAN endeavors to show by reference to cases of aortic and innominate aneurism: 1. That aneurism of aorta and innominate artery may exist and give rise to laryngeal symptoms only, but in most cases, on careful physical examination, certain collateral signs may be made out sufficient to warrant one in forming a positive diagnosis, or to give rise to a very strong suspicion of intra-thoracic tumor. 2. That in the early stage pressure may cause symptoms of most urgent dyspnœa, accompanied by laryngeal stridor and paroxysmal cough. 3. That at a later stage paralysis occurs, usually, but not always, limited to one side, characterized by phonative waste of breath and imperfect cough, but without dyspnœa, except when reflex spasm is indicated on the opposite side, or when pressure-stenosis is caused by the aneurism. 4. That in certain cases tracheotomy should be performed, not only to prevent impending death from dyspnœa, but also as a remedial measure.

Dr. Newman gives the records of three cases which illustrate his points, and from which deductions have been drawn. The first was one of aneurism of the innominate artery and descending aorta, with paroxysmal dyspnœa from unilateral spasm of right vocal cord, followed three months after by bilateral spasm of adductors, and at a more remote date by bilateral paralysis of adductors. In this case the paroxysms closely resembled an attack of laryngismus stridulus, as seen in children. There was slight bulging of the sternal end of the clavicle, and evidences of hypertrophy of the left ventricle, but no pulsation over the small area of dulness, situated immediately to the right of the sternum and between the clavicle and second rib. The patient had come for treatment on account of paroxysmal difficulty in breathing and a harsh dry cough, the voice being practically unimpaired except during the paroxysms. Examination showed the larynx to be healthy; but if the mirror was held in position for even a short time the right vocal cord would be drawn across the middle line and fixed there, and immediately thereafter the patient would have a paroxysm of dyspnœa. On post-mortem examination the right recurrent laryngeal nerve was found to be completely obliterated. In a second case the only symptoms supporting the diagnosis of aneurism were dysphonia, from pressure on the left recurrent laryngeal nerve, and a difference in strength and rhythm of the radial pulses. A short time after this there was a development of paroxysmal tracheal dyspnœa, partial suppression of respiration, murmur on the left side, and detection of dull areas along the course of the ascending and descending aorta. Laryngoscopic examination showed that the left vocal cord remained stationary in the cadaveric position during attempted phonation, and the apex of the arytenoid cartilage was drawn so far forward that the posterior third of the left vocal cord was not visible. The patient had had syphilis, and improved under iodide of potassium.

In the third case the patient had occasionally had considerable difficulty in breathing and a severe cough, without expectoration; during the intervals between the attacks of dyspnœa the voice was unaltered. Examination of the larynx showed that the cords were completely approximated during phonation, but that the left cord did not respond so actively as the right. At this time nothing abnormal could be discovered about the chest except slight hypertrophy of the left ventricle. Six months later, however, the physical signs were fully sufficient for a diagnosis. The fourth patient only complained of loss of voice. In a short time there was dyspnœa on exertion. The left vocal cord was found to remain in the cadaveric position during attempted phonation, but on direct pressure with a probe to the left of the arytenoid cartilage the cord moved freely. The other symptoms were only sufficient for a suspicion of aneurism, but were more decided four months later.

It is well known that death occurs, in cases of aortic aneurism, as a direct result of laryngeal suffocation. What is the cause of these attacks of dyspnœa? Reid pointed out many years ago that "severe

dyspnœa, amounting to suffocation, may arise both from irritation and compression of the inferior laryngeal nerves or the trunks of the pneumogastrics. For when both, or even one, recurrent nerve was irritated, the arytenoid cartilages were approximated, so as in some cases to shut completely the superior aperture of the glottis;" and he explained how paralysis of this nerve, occasioned by compression or other cause, should produce this effect by arresting all the movements of the muscles of the glottis. It has been shown, by Rosenthal, Rutherford, Waller and Prevost, that if the superior laryngeal nerve be divided, and its central end stimulated, bilateral spasm of the glottis will result; the impression is conveyed by the superior laryngeal to the central nerve nuclei, and is thence reflected through the efferent nerves (recurrents) to the muscles on both sides: and it is easily understood why pressure on the superior laryngeal or on the trunk of the vagus may reflexly cause bilateral spasm or bilateral paralysis. But when the recurrent nerve alone is stimulated, the results are different. "A stimulus acting on the efferent fibres generally causes unilateral adduction or abduction of the vocal cord." Pressure on one recurrent nerve is not likely to lead to serious dyspnœa; but pressure on the vagus, by causing spasm of the adductors on both sides, or paralysis on one side and spasm on the other, frequently leads to serious and sometimes fatal laryngeal obstruction.

Is the obstruction to respiration due to interference with the function of the larynx, or to diminution in the lumen of the larger air-tubes? How can we determine when the dyspnœa is due to abductor paralysis, and when to adductor spasm? The first question is important in connection with contemplated tracheotomy. If the dyspnœa be due to laryngeal obstruction tracheotomy will relieve it; otherwise the operation is useless. Laryngoscopic examination, therefore, is of very great importance, as without it a needless tracheotomy may be performed. As to the value of tracheotomy in suitable cases, it must be apparent that the paroxysms of dyspnœa act hurtfully on the aneurism by causing strain on the walls of the sac, and they are also an immediate danger to life. Tracheotomy will therefore permit of rest, and it will obviate the danger of death from asphyxia or rupture of the sac during a paroxysm. It may be that the operation will only give temporary relief—but the patient is entitled to the chance.

Space does not permit a more extended notice of this valuable paper. It may be found in the *British Medical Journal* of July 2.

THE AUTOBIOGRAPHY OF DR. GROSS.

From the press of George Barrie, Esq., of Philadelphia, has just been issued the Autobiograpy of Dr. Samuel D. Gross, in two elegant octavo volumes, of more than 400 pages each, edited by his sons, Dr. Samuel W. Gross and A. Haller Gross, Esq. "It is my wish," the author says in explanation of the writing of an autobiography, "to write a sketch of my life for the gratification of my children and grandchildren, and for the benefit of such members of my profession as may feel an interest in me from my long connection with it." And certainly there can be but little doubt that much good will grow out of this labor to those who read the life's record of the great master of surgery. The ambition that can not be stimulated by it must be small indeed. Like most men who have made their mark in the world, and one that time cannot efface, Dr. Gross began his professional career as a poor man, and with no one to push him into fortune and fame. What he did for himself is, in a general way, already known; and what we knew before only added zest to the reading of this book. And besides this, there is a charm in reading of the great men of the profession of fifty years ago, sketches made by the man who knew them well, and yet whose hand many of us have grasped.

But there are many practical points, and many wise suggestions in the works to which we wish to call attention. One of these is that "the voice of the stomach should not be disregarded in eating and drinking. As a general rule, whatever the stomach craves may be accepted as an indication as to what is wholesome. Some physicians seem to be incapable of interpreting nature, no matter how loudly or energetically she makes her demands." It will be remembered that some years ago Dr. Gross published a paper on the "Cravings of Nature" in the *American Practitioner*, and many would do well to read it. Apropos of recent attempts to create interest in the subject of a National Bureau of Health, it is now almost thirteen years since, at a meeting of the American Public Health Association in Philadelphia, Dr. Gross warmly advocated the necessity of such a Bureau, to be located in Washington, with a branch at the seat of government of each State and Territory. "We have," he said, a "minister of war and a minister of the Navy to keep the country in a condition to meet any foreign bloodhounds that may threaten our liberties and deprive us of our territory. Why then should there not be a minister of health to see to our sanitary affairs, to enable us the better to cope with the enemies that visit us in our

dwellings. . . . So long as we are without well organized government aid, so long will our people from the lowest to the highest pay the penalty of preventable disease."

Dr. Gross took very great interest in the American Medical Association, and one of the last acts of his life was to write a paper for the Washington meeting in 1884. In his account of the meeting in Chicago ten years ago he has some remarks concerning the work of the Association, and the quoting of them may cause us to ask if the same may be said now—and may stimulate us to better things in the future. "While the American Medical Association has done much good, it has by no means accomplished . . . what it had promised to do, or what had been expected of it. . . . While the Transactions contain some excellent papers which would be creditable to a similar body of men anywhere, it contains many others which are entirely destitute of merit, and are disreputable as literary productions. The annual addresses in medicine, surgery, midwifery, and hygiene are worse than useless, and are not what such an Association should listen to, covering, as they do, merely the advances made in these branches during the preceding year—a task which any youth of tolerable respectability in the profession could execute as well as any veteran." Fortunately we can say that since this was written many chairmen have departed from that beaten and profitless road, and have delivered addresses on special subjects, leaving the members to do their own research and reading in regard to the year's advances. And if any of us deem the above criticism rather harsh, let us remember that it comes from one who was at all times a friend, who had the interests of the profession at heart, who did for his department of American medicine what no one else has done, and who, almost in the hour of death, said of the Association, "Give them my love."

Dr. Gross' Autobiography may be obtained in Chicago of Mr. W. T. Keener, 96 Washington street.

UNSATISFACTORY MEDICAL APPOINTMENTS.

At the recent annual meeting of the State Medical Society of West Virginia, the following preamble and resolution was adopted with much unanimity:

WHEREAS, We are assured that in the recent appointment to the vacancy of the Board in the First District, the letter and spirit of the law were violated, and that the character of the appointment in other respects is not such as the profession have a right to expect, in consideration of the dignity and responsibilities of the office.

Resolved, That the action of the Governor in making this appointment merits our unqualified disapproval; and that we most earnestly and respectfully call upon him to assist us, by his official acts, to maintain and uphold the law in its spirit and integrity.

The law referred to is the Act creating a State Board of Health, and the action of the Governor of that State so "unqualifiedly disapproved," was the appointment of Geo. J. Garrison, M.D., of Wheeling, to fill a vacancy on said State Board of Health. If we are correctly informed, the said Dr. Garrison had received a diploma only about one year previous from the Jefferson Medical College, of Philadelphia, and that after having attended but *one* regular annual course of lectures, although he had been in practice for several years. The same appointment had been protested against by twenty-nine of the physicians of Wheeling. Such action on the part of the State Medical Society, and of a large majority of the regular members of the profession in Wheeling, is sufficient evidence that the Governor's appointment was not based on any superior professional education or special fitness on the part of the appointee, such as would enable him to discharge the important and responsible duties devolving upon the State Board of Health, in such a way as to command the confidence and respect of the profession and the people of the State. It is the frequent recurrence of such mere political appointments to positions requiring high professional attainments and acknowledged ability, that causes so many in the medical profession to doubt the propriety of all legislation having for its object the control of medical education and practice. If we are not mistaken it was this act of the Jefferson Medical College in conferring the degree of Doctor of Medicine on Dr. Garrison after attendance upon only one annual college course of lectures, that caused the West Virginia State Board of Health to threaten to exclude that college from the list of colleges recognized in good standing. And yet hardly twelve months passes before the same cheaply graduated doctor becomes a member of the same State Board of Health by the act of the Governor of the State, in defiance of the expressed wishes of the medical profession of the State.

Such appointments, however, are no more reprehensible than the practice of conferring Degrees on "*Practitioners*" *after one course of college lectures*, that still seems to prevail in some medical colleges, not alone in the rude West or the *malarious* South, but directly in the Eastern metropolis, so-called, of medical education and science.

THE RELATION OF CONGENITAL MALFORMATION TO MENTAL WEAKNESS.—In connection with a trial for

murder, the prisoner having hare-lip and cleft palate, the following questions have been asked:

Is congenital malformation usually or often accompanied by mental weakness?

Is the subject more liable to unsoundness of mind than other persons?

Can any special relation be made out between malformations of the head (such as the above) and mental weakness?

What is the proportion of such malformations among the insane and feeble minded?

Dr. Praskovia N. Tarnovskaia reported at the first Congress of Russian Alienists at Moscow, that 84 per cent. of the habitual prostitutes showed various signs of physical degeneration, such as irregularity in the shape of the skull, asymmetry of the face, anomalies of the hard palate, teeth, ears, etc.

Any information, statistics, or reference to literature, which will throw any light on these questions will be gladly received at this office, and full credit will be given.

ADVANCE REGISTRATION FOR THE CONGRESS.—Under the head of International Medical Congress, in another column, will be found the form of *application* in blank, for members of the regular medical profession, in the United States, to *fill correctly* and send, or present in person, to the Chairman of the Committee on Registration, J. M. Toner, M.D., 615 Louisiana Avenue, Washington, D. C., with the membership fee, $10, and each person sending the application for registration in advance, by mail, should enclose a postage stamp to pay for return receipt or ticket of admission in return. To save our readers the time and trouble of sending to Washington for the form of application, we will include an extra form in each copy of our next week's issue that can be detached for use.

NINTH INTERNATIONAL MEDICAL CONGRESS, R. R. RATES.—Let none of our readers, in any way interested in the International Medical Congress of Sept. 5, 1887, omit reading carefully the official announcement concerning R. R. rates over the signature of the Chairman of the Transportation Committee on page 126 of THE JOURNAL for July 23. They will see that the reduced rates apply not only to *members*, but also to members of *their families*. We wish to emphasize the fact, however, that all who wish to avail themselves of the reduced rates *must* apply to J. W. H. Lovejoy, M.D., No. 900 12th St., Washington, D. C., for just as many *Certificates* as they have *persons* intending to go. Such applications had better be made without delay.

SOCIETY PROCEEDINGS.

AMERICAN CLIMATOLOGICAL ASSOCIATION.

(*Concluded from page 687, Vol. VIII.*)

EVENING SESSION.

DR. FRANK DONALDSON, of Baltimore, read a paper on

CAUSES OF CARDIAC FAILURE IN HIGH ALTITUDES.

The important fact that there is often great dyspnœa and sudden cardiac failure on going to high altitudes has not been sufficiently emphasized. Many patients are sent for general or special reasons to high altitudes and are thereby done great injury, especially if they suffer from any form of functional organic heart disease. From some experiments with the pneumatic cabinet the author had come to the conclusion that this treatment should not be employed in cases in which there is any valvular disease of the heart or fatty degeneration of its walls. Before being subjected to treatment in the cabinet an examination of the heart should always be made. It has been asserted that the cause of the cardiac failure in ascending to high altitudes is want of oxygen. The speaker had performed certain experiments with reference to this point. At altitudes within 10,000 feet there is sufficient oxygen to supply the hæmoglobin. In ascending to high altitudes the pressure of the air within and without the lungs is the same, but on the heart the action is different. The pressure is removed from the outer surface of the heart, while the internal blood-pressure remains the same. There consequently must be dilatation of the heart walls. This, in the speaker's opinion, was the cause of the heart failure under these circumstances.

DR. B. F. WESTBROOK, of Brooklyn, thought that the explanation of the author with reference to the effect of high altitudes on the heart is correct, but in the pneumatic cabinet the conditions are different. Where the patient inhales compressed air or sits in a rarefied atmosphere and inhales air at the ordinary pressure, there is an absolute or relative increase of pressure within the thorax. The heart is therefore submitted to a relatively increased pressure. As a matter of practical experience, patients with mitral stenosis or mitral regurgitation with pulmonary congestion can be put in the cabinet with safety. He would hesitate very much before putting a patient with aortic regurgitation into the pneumatic cabinet. In mitral disease, however, the tendency is to assist rather than exhaust the diseased heart.

DR. S. SOLIS-COHEN, of Philadelphia, said that when the individual goes into a rarefied atmosphere there is a disturbance of the relationship between external and internal pressure, and this disturbance will necessarily bring upon the patient disease. The inhalation of compressed air in cases of dilated heart has been recommended by Waldenburg and others. He had recently employed this measure with beneficial results in alleviating the dyspnœa and defective circulation due to a dilated heart.

Dr. James T. Whittaker, of Cincinnati, said that the condition met with in a rarefied atmosphere cannot be compared with that met with in the pneumatic cabinet. It does not seem possible to exert any mechanical pressure upon the heart in the cabinet. The conditions which have been observed admit of easier explanation by a study of the effects on the surface vessels. When the pressure is removed from the superficial vessels, the dilated heart propels the blood easier than before. This is one of the most efficacious means of treating irregular heart. He had used the cabinet for two years and had seen no ill effects from its use.

Dr. F. C. Shattuck, of Boston, read a paper on

SOME HOSPITAL CASES OF PHTHISIS; MARKED IMPROVEMENT UNDER GENERAL TREATMENT WITH SPECIAL REFERENCE TO ALIMENTATION.

Many of the patients had been exposed to unfavorable hygienic surroundings. The treatment employed was devoted largely to improvement of the general condition. Search had been made for a specific treatment. If the disease is of a parasitic nature it is natural to suppose that such a treatment would be of avail. At present no such method of treatment is known. There are few individuals to whose lungs, at one time or another, the bacillus does not gain access. The fact that certain individuals are affected while others escape, forces us to believe that there is a predisposition to the disease. The treatment employed by the author had consisted in relieving symptoms, improving the digestion, and the administration of as much food as the patient could take in the natural way. Artificial feeding was not resorted to, but the patient was fed six or seven times a day. From two to ten raw eggs with milk were given daily to each patient. Alcoholic stimulants were not administered to the patients as a routine treatment, but were used only temporarily for special purposes. He had for several years been systematically cutting down the quantity of alcohol used in chronic cases, and had seen no reason to regret it. His experience had been that alcohol was not used with sufficient discrimination in chronic cases of disease. Beef, milk, eggs, and other nourishing articles are more expensive than alcohol, but, if they can be consumed in sufficient quantity, they are more useful. In 1883 the amount expended per patient for alcoholic liquors had been $2.70, while in 1886 it had been only 34 cents. The patients received no injury even if they were not benefited by this reduction. Eight cases of well-marked phthisis were reported in which a decided gain in weight and general improvement resulted from the employment of the plan of treatment above described. About sixty cases had been under treatment.

Dr. E. T. Bruen, of Philadelphia, read a paper on

GASEOUS ENEMATA.

Of the therapeutic measures under the control of the profession, diet, climate and suitable hygiene are of principal importance. It is possible by climatic and dietetic treatment to so change the nature of the tissues that they shall not be suitable culture media for the growth of the bacillus of tuberculosis. I wish, however, to refer more particularly to the use of the Bergeon method by the injection of sulphuretted hydrogen. To antagonize the specific cause of the disease, this method has been a failure so far as my experience goes. Since February last I have had under treatment sixty one cases by this method. Systematic examinations of the sputa have been made by Dr. E. O. Shakespeare. There has been no apparent reduction in the number or change in the character of the bacillus. This method should be classed among the methods at our disposal for the treatment of this disease. The good effects in my hands have been reduction of temperature, reduction of expectoration, very often a complete suppression of bronchial catarrh, and relief of cough. This leads to improved digestion and enables the dietetic treatment to be carried out with great thoroughness. Forty-four of these cases showed improvement to a certain extent, the average gain in flesh being about five pounds. In one-half of the cases the temperature has been brought to the normal, while in the remainder, although the temperature has not been brought to normal, it has been reduced two or three degrees. In fifteen cases the results have been negative, but in no case did any harm follow the use of this plan of treatment. The improvement has been most marked where there is a considerable catarrhal element. Those cases in which there has been more or less thickening of the lung, with the general symptoms well-marked, wasting, loss of flesh and weight without much rise of temperature, I have found not specially benefited by the injection of gas. I have had the opportunity of making a post-mortem in one case which had been subjected to this treatment. Although the cavities in the lungs were unusually clean, I did not observe any evidences of cicatrization. With reference to the strength of the solution, I have not found strong solutions at all satisfactory. The best results have been obtained from a solution of 5 grains of sulphide of sodium with 5 grains of chloride of sodium in 1½ pint of water. I have never found it desirable to administer more than 1½ gallon of gas at one time. I insisted that the injection be made slowly and that one-half to three-quarters of an hour should be occupied. I have not derived as much satisfaction, in the treatment of the various forms of phthisis to which I have referred, from any method as I have from the injection of sulphuretted hydrogen. I have always tested the breath for the presence of sulphuretted hydrogen. I have had negative results in at least eight out of every ten cases.

Dr. S. Solis-Cohen said that the experience of Dr. J. Solis-Cohen and himself differed in some respects from that of Dr. Bruen. They had obtained the most decided benefit from strongly impregnated waters. The best results were obtained in those cases in which the patient had a decided taste of sulphuretted hydrogen which continued for two or three hours after injection. The best effect has been obtained in those cases in which suppuration is about beginning. In about 50 per cent. of the cases the condition has been greatly ameliorated. In another 25 per cent. there was slighter amelioration, while in

the remaining 25 per cent. there was more or less benefit to certain symptoms. He had seen no case in which no results were obtained.

DR. JAMES T. WHITTAKER had for a month used sulphuretted hydrogen by inhalation, having previously employed it for a month by injection. He puts the patients in the cabinet and allows them to have all the gas they will take. It has produced no unpleasant results in any case. The effects obtained have been about the same as those resulting from injection. In about one third of the cases there were no results. In searching the literature for records of bad results following the use of sulphuretted hydrogen, he found only ten in which a fatal result followed.

DR. ROLAND G. CURTIN, of Philadelphia, stated that it had been recommended by Dr. C. Wood that the sulphuretted hydrogen be taken by the stomach, using a saturated solution through which carbonic acid has been passed. He had tried this in four or five cases, and had had the same effects as from injection.

DR. F. C. SHATTUCK had used the sulphuretted hydrogen gas, and in several patients it produced collapse in varying degrees, with weak pulse, nausea, vomiting and headache. In several other cases, although the treatment was well tolerated, it produced no good effect. In one case of asthma with chronic bronchitis and emphysema thirty four injections of the gas were given. While the treatment did not disturb the patient, it did no good. With the use of the gas was combined the administration of iodide of potassium and other remedies, and the patient recovered in about the same time as on a previous occasion when the latter remedies were given and no gas used.

DR. B. F. WESTBROOK, of Brooklyn, read a paper on

THE LOCAL TREATMENT OF DISEASES OF THE RESPIRATORY ORGANS.

The methods of treatment which had been employed were the direct introduction of coarse sprays, the use of the Evans inhaler and the use of the pneumatic cabinet. In the treatment of phthisis the best results are attained in the early stages of the disease, or where the disease, although further advanced, is limited to a small portion of the lung. The use of sprays is beneficial only in so far as we desire to treat the coexistent bronchitis or cavities connected with bronchi of the second or third order. In incipient phthisis with very little bronchial catarrh, local treatment is probably of little service. These cases are best treated with compressed air. In a large proportion of the cases we may hope to render the disease latent. The expansion of the lung favors the expectoration of the contents of the smaller tubes and modifies the intra-thoracic circulation. The sittings should be frequent—every day or every second day. Ten minutes is usually sufficiently long for the patient to remain in the cabinet. The pressure should gradually be increased up to one-half or three fourths of an inch. If used cautiously this is the best method for the local treatment of incipient phthisis. With the Evans inhaler his results had also been satisfactory.

In the treatment of advanced cases the first effort must be to cure or diminish the bronchitis. The pneumatic treatment then comes into play. This gives better expansion, improves the circulation and alters the action of the trophic nerves. In all cases internal medication has been combined with the local treatment. The more acute the disease, the higher the fever and the more sudden the onset, the less can we expect to accomplish by treatment. In no case diagnosed as acute phthisis did treatment have the slightest effect.

WEDNESDAY, JUNE 1—SECOND DAY.

DR. A. Y. P. GARNETT, of Washington, read a paper entitled,

OBSERVATIONS UPON THE SANITARY ADVANTAGES OF TIDE WATER, VA., INCLUDING VIRGINIA BEACH, AS A WINTER HEALTH RESORT.

While no official records of the causes of death in this locality have been kept, the traditions of the inhabitants during the past hundred years and the observation of intelligent practitioners practicing in this region, go to show that consumption is very rare. In other respects this locality is remarkably healthy. The average number of deaths per thousand from all causes during the past six years has been 10.66. The average death-rate in other sections of the State is 12 per thousand. The author was disposed to attribute some of the benefits which this locality presents to the proximity of the Great Dismal Swamp which has an area of thirty by ten miles covered with cypress and evergreen trees. At Virginia Beach the forest comes down close to the sea. The atmosphere is remarkably dry, and salt exposed during the day shows no tendency to absorb moisture. The average temperature during the winter months is considerably higher than other places along the coast. As compared with Atlantic City, we have the following figures:

	Virginia Beach.	Atlantic City.
January, - -	34.6°	30°
February, -	39°	29°
March, - -	45°	39.°

DR. A. L. LOOMIS, of New York, read a paper on

EVERGREEN FORESTS AS A THERAPEUTIC AGENT IN PULMONARY PHTHISIS.

It has long been known that similar climates as determined by geographical and meteorological conditions have different therapeutic effects. That there is some relation between the development of organisms and atmospheric conditions is becoming more and more apparent. We know that cold and high altitude render the air aseptic, but the degree of cold and the height required is so great that clinically it is not possible to derive much advantage from this fact. The effect of a purely aseptic air upon ulcerative processes is not so great as the effect of an atmosphere which is aseptic on account of the presence of antiseptic agents. The belief in the good effect of pine forests in cases of phthisis is quite unanimous and the author thought that the clinical evidence in

favor of their beneficial influence in these cases was unquestioned. The atmosphere in such regions is not only aseptic but also antiseptic. Such an atmosphere contains considerable turpentine vapor and we should therefore expect it to contain a certain amount of peroxide of hydrogen. It was the speaker's opinion that the majority of cases of phthisis die, not directly from the lesions of the lung, but from the secondary septicæmia and pyæmia which is set up. It is impossible to apply to the ulcerations within the lung the antiseptic washing and dressing that is employed in external lesions, but if an antiseptic atmosphere can be obtained we may hope to counteract the secondary poisoning. Such an atmosphere will not destroy the bacilli, but it will accomplish much in the way of arresting the suppurative process. It was the opinion of the speaker that the atmosphere in the region of evergreen forests acts in a manner similar to the antiseptic agents which are successfully used to arrest suppurative processes in other portions of the body, and he thought in all probability the active agent was the peroxide of hydrogen resulting from the oxidation of the turpentine vapor. While it is not possible for every one suffering with pulmonary phthisis to go to an antiseptic atmosphere it is possible to render the air of any particular locality antiseptic. The evergreen forests should be preserved and evergreen trees should be planted in the neighborhood of our houses.

Dr. S. Solis Cohen stated that he had had excellent results in the way of alleviation of symptoms in phthisis by the inhalation of terebinthinate substances, especially where this has been associated with the inhalation of peroxide of hydrogen or oxygen. Under these inhalations he had seen laryngeal ulcers cicatrice, especially if they have been previously washed with the solution of peroxide of hydrogen.

Dr. W. C. Van Bibber, of Baltimore, read a paper on *The Climate of the Sub-Peninsular Pinellas, Florida.*

Dr. E. L. Trudeau, of Saranac Lake, N. Y., read a paper on

ENVIRONMENT IN ITS RELATION TO THE PROGRESS OF BACTERIAL INVASION OF TUBERCULOSIS.

Environment evidently has an important bearing in reference to bacterial invasion. The author proposed to himself the following questions: 1. What results ensue when bacillar invasion and unhygienic conditions are made to co-exist? 2. Are unhygienic surroundings sufficient to cause phthisis when precautions are taken to exclude the bacillus? 3. Is bacterial infection always productive of tuberculosis when the animal is placed under the most favorable hygienic conditions? In order to answer these questions the following experiments were performed. Fifteen healthy rabbits were taken and divided into three sets of five each. The first experiment consisted in taking five of the rabbits, inoculating each with a pure culture of the tubercle bacillus and subjecting them to overcrowding in a dark cellar with poor and insufficient food and other unhygienic conditions. In the second experiment five rabbits were placed in a box and lowered into a pit dug in the ground, the mouth of the pit covered with earth with the exception of a trap-door for the introduction of food, which consisted of one small potato for each animal per day. So damp was the air that the box in which the animals were confined was constantly wet. The third set of animals were inoculated with the tubercle bacillus and turned loose on a small island where they had abundant sunlight, fresh air and exercise. They were daily supplied with wholesome food.

The results of the experiments were that four of the first five rabbits died in three months and extensive tuberculosis found. The fifth animal was killed at the end of five months and the same condition found. The second set of rabbits were all living at the end of four months. They seemed to be as active as at the time the experiment began. They were then killed and careful examination showed nothing abnormal. One of the third series of rabbits died at the end of one month and on examination there was enlargement of the cervical and bronchial glands and tubercles in the spleen. The remaining rabbits continued in apparently good health and were killed at the end of four months. They were loaded with adipose tissue, the flesh was firm and red, all the organs were normal and even the seat of the punctures could not be made out. These experiments confirm the theory that the production of tuberculosis is a most complex process. Although the environment may bear but the relation of a predisposing cause to the microbe invasion, it is nevertheless a most potent factor in determining the future and final results of the disease, and while we may not underestimate the pathogenic properties of the bacillus, the effect of environment upon the vitality, is a factor which must not be ignored.

Afternoon Session.

Dr. A. C. Peale, of the U. S. Geological Survey, Washington, presented a *Classification of American Mineral Waters.*

Dr. F. F. Smith, of St. Augustine, Fla., read a paper on

ST. AUGUSTINE, FLA., AS A WINTER HEALTH RESORT.

He described the geographical and climatic conditions existing in St. Augustine. An abundance of pure water is obtained from sixty artesian wells. This water is charged with sulphuretted hydrogen. Drinking water is obtained by means of cisterns. A complete system of sewers is now being introduced. These will be flushed by the waste water from the artesian wells. The average temperature during the winter months of the past ten years has been as follows: November, 63°; December, 57; January, 55°; February, 58°; March, 61°; April, 67°. The average number of rainy days during the winter months for the past ten years has been 33, but on 19 of these occasions the rainfall was at night so that there was really only *14 rainy days.*

The following papers were read by title:

An Invalid's Day in Colorado Springs, by Dr. S. E. Solly, Colorado Springs; *The Climate of Southern California*, by Dr. H. S. Orme, Los Angeles, Cal.;

Pas Christian, Mississippi, as a Health Resort, by Dr. Chas. LeRoux, Pas Christian.

The report of the Committee on the Congress of American Physicians and Surgeons was received and adopted. Dr. A. L. Loomis, of New York, (with Dr. F. Donaldson, Sr., of Baltimore, as alternate) was appointed as the representative of the Association to the Committee on the Congress.

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. A. L. Loomis, New York.

Vice-Presidents.—Drs. A. P. Y. Garnett, Washington, and James T. Whittaker, Cincinnati.

Sec'y and Treas.—Dr. James B. Walker, Philadelphia.

Council.—Drs. E. T. Bruen, Phila.; J. H. Tyndale, New York; F. H. Bosworth, New York; F. C. Shattuck, Boston, and R. G. Curtin, Phila.

The Association then adjourned.

FOREIGN CORRESPONDENCE

LETTER FROM GOETTINGEN.[1]

Surgical Tuberculosis — Tuberculosis of Ribs; of Knee; of Elbow—Resection of Hip—Koenig's Success with Tuberculosis—Iodoform—Carcinoma of the Rectum—The Germ of Erysipelatoid of the Fingers —Merkel.

Professor Koenig spent a whole forenoon in showing the most interesting cases of surgical tuberculosis and in describing the different affections and explaining their treatment. A number of cases of tuberculosis of the ribs were shown, among them one where nearly an entire rib had been removed. When tuberculosis selects a rib, and this is rather a frequent point of localization, it appears usually as a central lesion primarily extending by continuity along the central cancellated tissue and towards one or both surfaces of the ribs, where the periosteum is destroyed and the disease extends to the contiguous soft tissues, giving rise to diffuse abscess in the external wall of the chest, where it extends in a superficial direction, and to the formation of peri-pleuritic abscess, when the process travels in the direction of the pleura. If such abscess have opened spontaneously or have been incised extensive and sinuous fistulous tracts are formed, which frequently renders the detection of diseased bone, by probing, difficult or impossible. Treatment by simple scraping seldom leads to a permanent cure, as it is almost impossible to reach all of the diseased tissue with a spoon. The only treatment which can be relied upon is to expose the rib freely by an incision and to follow the disease until healthy bone is found and then to excise the entire thickness of the rib. Abscess cavities and fistulous tracts must be laid open freely and thoroughly scraped. A case was shown where the fourth rib in a young woman was the seat of the disease, and where numerous fistulous tracts lead underneath the mamma where, in order to expose the diseased rib freely, the entire breast was loosened from its attachments to the chest and reflected; after the removal of the diseased tissues it was replaced and fixed with sutures. The case is now progressing favorably.

An excedingly interesting pathological condition in tubercular joints was described and illustrated by specimens and drawings on the blackboard. It related to cases in which the tubercular process is primarily located near an articular cartilage, and where at a corresponding point in the joint a plastic exudation takes place, and which, after it has become fully organized, protects the remaining portion of the joint against infection, as for an indefinite period of time and perhaps permanently this plastic wall limits the extension of the disease. It is a spontaneous effort towards retardation of the process, and may even result in a permanent cure.

In children suffering from tuberculosis of the knee-joint Koenig resorts to arthrectomy and careful removal of tubercular foci from the articular extremities with the sharp spoon. In adults he prefers typical excision. He showed two female patients, aged respectively 63 and 65 years, to prove that old age is no contraindication to excision of tubercular joints. Both patients were suffering at the same time from pulmonary tuberculosis. One of them had undergone excision of a tubercular knee-joint five weeks previously, and the wound had nearly healed under two dressings without suppuration, at the same time the general health had materially improved. The second case was one of tuberculosis of elbow-joint, followed by the formation of an immense articular abscess in a greatly emaciated phthisical woman, where the object of the operation was more for alleviation than cure, but where, against all expectations, the wound healed in a remarkably short time without the formation of a drop of pus. Although in this case the general condition did not improve, the increased comfort has more than compensated the patient for the risk she assumed. It is difficult to conceive of anything more satisfactory than the prompt healing of such immense wounds under such unfavorable local and general conditions. I doubt if any one but Koenig can show such results. After excision of the elbow-joint he does not resort to passive motion until five weeks after the operation, when the forearm is flexed at right angles with the arm, and in this position is immobilized for another week or two, after which time regular passive motion is made.

In excising the hip joint he makes a long straight incision over the centre of the greater trochanter down to the bone; after the joint has been reached the upper rim of the acetabulum is always removed with a chisel, so as to afford better access to the joint. With a chisel the trochanter is divided into three parts in the line of the axis of the bone; the central portion is the thickest, and its upper portion is cut off so as to secure direct drainage of the joint after the lateral portions have been replaced and retained with a few sutures. Through such an opening the head and neck of the bone can be readily removed, and the acetabulum becomes accessible

[1] By permission of Drs. Fenger and Senn.

for operative procedure should the local conditions warrant such a step, while through the defect in the great trochanter efficient drainage could be established. The whole after-treatment consists in rest in bed with extension by weight and pulley in abducted position for five weeks. After this time the patient is allowed to walk on crutches and extension is applied only during night for at least a year.

Since I have seen the numerous patients in Koenig's klinik, where a few weeks after the operations the wounds were either entirely healed or only a superficial granulation surface remained, I have become convinced that the numerous failures in my own practice and the practice of other surgeons were due to imperfect removal of diseased tissues, especially in the acetabulum and the capsule. Koenig attacks these structures boldly and fearlessly with his chisels and large spoons, and does not close the wound unless he has satisfied himself that the object of the operation, the removal of the granulation tissue, has been accomplished. Other surgeons will do well to follow his example.

That iodoform is used after these operations is unnecessary to mention, as Professor Koenig has not lost his faith in the anti-bacilary effect of this drug. You are undoubtedly aware that two of your countrymen have recently tried to prove that iodoform has no antiseptic properties whatever. This is a strong claim, as it comes in conflict with the practical experience of thousands of surgeons who for several years have had unlimited faith in its antiseptic qualities, and have been pleased with the results. The communication from Copenhagen caused quite a commotion among the German surgeons, as the claims were based on results obtained from experiments, and no one doubted the reliability or sincerity of its authors. Numerous careful experiments were made in Berlin by de Ruyter, who presented the results of his investigations to the German Congress of Surgeons at their last meeting, wherein he showed to the satisfaction of all present that while iodoform may not prevent germ-growth directly, it has a decided antiseptic action, as when it is brought in contact with ptomaines a chemical change takes place which destroys the toxic effects of the products of the germs. In the discussion after the reading of this paper Professor Bruns said that iodoform possesses direct anti-bacillary properties, and in support of this assertion states that he had treated fifty-four cases of tubercular abscess by injecting a mixture of alcohol, glycerine and iodoform after evacuating the pus, and out of this number forty recovered. As an additional proof of the anti-tubercular effect of iodoform, he has observed by careful examination that a few weeks after an iodoform injection into a tubercular abscess, the bacilli had completely disappeared. Volkmann expressed himself as perfectly satisfied with iodoform, and said that in the face of such uniform favorable results we had no right to abandon it as an antiseptic.

I have had an opportunity to satisfy myself, in the private laboratory of Professor Socin, of Basle, which is in charge of Dr. Garrè, his private assistant, that something must have been wrong in the Copenhagen experiments. Dr. Garrè showed me a number of gelatin plates which had been exposed to an iodoform spray and subsequently inoculated with different pus microbes, and which remained perfectly sterile. Dr. Garrè attributed the antiseptic quality of iodoform entirely to the iodine which it contains, and consequently places great stress on using a reliable preparation, carefully kept in a dark place.

Prof. Koenig has had an extensive experience with cases of carcinoma of the rectum, and has come to the conclusion that when the disease has extended high up it is better not to resort to desperate measures with a view to its removal, but prefers now, in such cases, to make an inguinal colotomy by dividing the bowel completely, emptying and closing the distal end and stitching the proximal end into the wound. This operation affords great relief, prolongs life, and is preferable to the more doubtful results obtainable by extirpation of a high rectal cancer. I believe Koenig only echoes the sentiments of all prudent and conscientious surgeons on this subject. There is a limit to radical measures in this as well as in malignant affections of other organs.

Professor Rosenbach has finally succeeded, after a long and patient search, in demonstrating the germ of a rather frequent but heretofore obscure lesion, *erysipelatoid of the fingers*. This disease is a specific dermatitis and always results from inoculation. Butchers, cooks, in fact persons handling game, are most frequently affected by it. The appearances of the skin resemble true erysipelas, but the affection remains circumscribed, never gives rise to constitutional symptoms, and disappears spontaneously after two to four weeks. The germ, which is invariably present, belongs to the class of algæ, grows readily upon gelatine culture, and when inoculated always produces the same disease.

One of the evenings in Göttingen I spent at the house of Professor Rosenbach, where I met Professor Merkel, the anatomist, and the house staff of the surgical clinic. A superb dinner was served, and although our host does not enjoy the weed, he had made special provision for this occasion, and the best brands of imported cigars were freely distributed during the evening. I visited Professor Merkel the next morning at the Theatrum Anatomicum and examined the splendid collection of skulls, Langenbeck's beautiful dissections of vessels and nerves, and the beautiful specimens of injected lymphatics made by Teichmann for his classical work on the "Anatomy of the Lymphatics." The table in the lecture-room is the same as was used by my distinguished countryman, Haller. It is made of oak wood, and although not as convenient as the dissecting tables of more modern construction, it answers every purpose, and it is to be hoped that it will serve the same useful purpose for many generations yet to come. The sight of such a venerable structure brings up many memories of the past, as a number of the greatest anatomists have stood at its head, and many of the most distinguished men who have gathered around it for several centuries have here laid the foundation for their successful career. Professor Merkel is a son-in-law and successor of the famous anatomist Henle, and is a

worthy follower of the long line of distinguished anatomists who have preceded him. He is now writing an extensive work on surgical anatomy which presents certain features which are destined to make it the most useful text-book on this subject.

The crowning point of my visit to this old seat of learning was a dinner given by Professor Koenig in one of the apartments of the hospital shortly before my departure, to which Professor Rosenbach and the house surgeons were invited. Toasts were drank, views exchanged until the cruel town clock reminded us that the hour for leaving had arrived. I parted from the band with a distinct promise that we should meet again "in the land of the free and the home of the brave." Very sincerely yours, N. SENN.

DOMESTIC CORRESPONDENCE

THE METRIC SYSTEM.

Dear Sir:—On May 8, 1872, it was resolved in the Section on Materia Medica and Chemistry "that the inclusion of the decigram and of the cubic centimetre in the list of officinal weights and measures is considered as desirable, and tending to the advance of medical science." On May 5, 1875, the American Medical Association adopted a resolution offered by Dr. Seguin, to appoint delegates to advocate in Europe the unity of clinical observation—to invite European societies to concert a plan of *uniformity* of *methods, instruments, scales, and records of clinical observation.* The plan embraced the unity of clinical thermometers, thermometric scales, charts, etc., a uniform graduation of the sphygmograph, myograph, spyrograph, æthesiometer, dynamometer, globulimeter, ophthalmoscope, thermoscope and other instruments of precision used in diagnosis, etc. On June 7, 1876, Dr. Seguin, in his report, in the name of the commission appointed the year before, says: This is not only a question of pride for the Association; it is one of justice to the American physicians at large."

On June 7, 1878, the following communication from the Medical Society of the State of Pennsylvania, was entered on the minutes of the Association:

At the annual meeting of this body held in Pittsburgh, May, 1878, it was unanimously

Resolved, That the Medical Society of the State of Pennsylvania, recognizing the advantages of the metric system from its universality, simplicity, and scientific character, does recommend the use of the same to the members of the Society, and urges them to familiarize themselves with it, and to advise their students to use it exclusively when they commence their medical career.

Resolved, That in all communications made to this Society in which reference is made to weights and measures, the metric system only should be used.

Resolved, That the Secretary of this Society is instructed to bring this action to the notice of the American Medical Association at its next meeting, and urge upon that Association a similar action.

At this same meeting of the Association, Drs. Marion Sims, T. M. Drysdale and E. Seguin were continued as commissioners and delegates to foreign medical organizations to *urge* the question of uniformity in medical observation, etc. Two days before this the following was adopted by the Section on Medicine:

Resolved, That this Section, recognizing the value of the metric system for its uniform, international, indestructible, generally applicable, convenient, simple, safe and scientific character, hereby recommends to all physicians the use of the same in their practice, and in their writings and teachings.

At the annual meeting of the Association in 1879, the Association took the following action in regard to the matter:

Resolved, That the American Medical Association adopts the International Metric System, and will use it in its Transactions.

At the annual meeting in 1880 the Executive Metric Committee appointed in 1879, recommended (1) the teaching and practice of the metric system in Medical Colleges, Clinics, Dispensaries, etc.; (2) that the Association charge its Executive Metric Committee with the duty to report annually on the above institutions which teach, and those which do not teach the metric system.

These recommendations were adopted.

The foregoing may seem to be ancient history; but it is sometimes useful to read such history in order to see what it has taught. Three or four years ago there was a warm discussion on the metric system in the *Medical News*, in which the system was upheld and adversely criticised—but without one good argument being made against it. And as yet no one has been able to discover one single fault in the system. Of the civilized peoples of the world the English and Americans are the only ones who still adhere to grains, drachms, scruples and ounces. For the present discussion it matters little whether the physician writes his prescription in scruples or portions of a ton, provided his chirography be so good that the druggist will not mistake his signs (and how many do write so clearly?). But what the readers of our literature demand, and what scientific accuracy demands, is that we shall use the metric system; that we shall no more read, and speak of in our writings, grains and ounces, inches and feet, Fahrenheit degrees, cubic inches and feet, or any other system of weights and measures than the metric. The amount of medical literature that is literally poured into this country is enormous, and with the exception of some of that which comes from Great Britain and her colonies, every weight and measure is expressed in the metric system, save in a few provoking cases (which find their counterpart here) in which a tumor is said to be as large as a nut or a seed.

It has been said that even if the metric system is used by "foreigners" the quantities should, in our literature, be translated into the drachms of our daddies. And this is an example of the way such must be done; Lewin's sublimate injection for syphilis, is

Corrosive sublimate.....0.24 or gr. iij7-11.
Distilled water.....30. or ℥vij ½.

Another solution (Rosenthal's) is

Corrosive sublimate.....024 or gr. 5-16.
Glycerine (heated).....4. or ℥j.
Water, q. s. ad.....15. or ℥iij ℈ij.

The English and American system seems to com-

pare as favorably with the metric as the Chinese does with our grains and drachms. The metric system is not "foreign"; it is scientific, and science knows nothing of nationality. Are we waiting for England? Why should we not take the lead? In fact England is already ahead of us in the use of the metric system.

Suppose it is a linear measure. If an instrument of precision be 2 cm. long it must be translated 4-5 inch. If the diameter of a tube be 3 mm. we must say .03937 inch if we wish to be precise; and the matter becomes ridiculous when we translate the size of microscopic objects from micromillimetres to fractions of an inch—for there is just as much reason to translate micromillimetres as centimetres or kilometres.

If a "foreign" writer speaks of one litre we must write 1.0565 quart in order to be exact; if cubic centimetres be the measure we must use fractions of cubic inches, or decimals.

In recording thermometric measurements the inconvenience is not so great, as we can always easily do away with fractions by using decimals—yet we not infrequently see the fractions used. The chief inconvenience is that in order to read temperature charts, in other languages, intelligently we must constantly bear in mind two separate scales. The barometers used for accurate scientific measurement are graduated in millimetres, and there are no decimals as in case of those commonly used in this country.

The truth concerning the neglect of the metric system in this country is that, in the first place it is not properly taught in schools, nor are decimals properly taught; in the second place, it is a little trouble to learn something new and strange, and our fathers got on pretty well with their system. I will venture the assertion that there are not half a dozen good chemists in this country or any other who use the apothecary's weight in their work. All books on examination of urine, etc., are written entirely in the metric system. If there were no other reason for adopting the metric system, the fact that it is used by the large majority of medical and scientific men —and has been found by them to be uniform, generally applicable, convenient, simple, safe and scientfic in character—would be alone sufficient.

Very truly, WM. G. EGGLESTON.

Chicago, July, 1887.

INTERNATIONAL CONGRESS.

SECTION OF DERMATOLOGY AND SYPHILOGRAPHY.

The following list of papers proposed to be read in the Section of Dermatology and Syphilography of the International Medical Congress, comprises those received previous to July 1, 1887. A number of papers have been promised by prominent European writers but the titles have not yet been received.

1. Lupus Lymphaticus, with drawings, by Mr. Jonathan Hutchinson, London.

2. Das Seborrhöische Ekzem, by Dr. P. G. Unna, Hamburg.

3. Hydroa and its relations to Pemphigus, Herpes, Dermatitis Herpetiformis (Duhring,) Impetigo Herpetiformis (Hebra), Herpes Gestationis, by Dr. T. Colcott Fox, London. As an introduction to a general discussion of the subject.

4. Treatment of Syphilis by injections of insoluble mercuric salts; by Dr. H. Watraszewski, Warsaw.

5. La lepre observée à Constantinople; by Dr. Zambaco, Constantinople.

6. L'elephantiasis des Arabes chez les enfants; by Dr. Moncorvo, Rio de Janeiro.

7. A new method of treating diseases of the skin locally; by Dr. Valentine Knaggs, London.

8. Einige trophoneurotische Gefässaffectionen; by Prof. E. Schwimmer, Budapest.

9. Sur le mycosis fongöide d 'Alibert. Nouvelle communication clinique avec recherche de microorganismes; by Prof. Tomasso de Amicis, Naples.

10. Electrolysis in Dermatology; by Dr. J. N. Bloom, Louisville.

11. On the occurrence of Ulcers resulting from spontaneous Gangrene of the Skin, during the later stages of Syphilis, and their Relations to Syphilis; by Dr. Herman Klotz, New York.

12. Double Comedo.—An Anatomicopathological study; by Dr. A. H. Ohmann-Dumesnil, St. Louis.

13. Erythematous Lupus of the Hands; by Dr. Ohmann-Dumesnil.

14. A new method of treating Favus and Herpes Tonsurans; by Dr. H. J. Reynolds, Chicago.

15. Area Celsi; by Dr. A. Ravogli, Cincinnati.

16. Lupus Erythematosus; by Dr. A. Ravogli.

17. A contribution to the Knowledge of Impetigo Herpetiformis (Hebra), by Dr. Joseph Zeisler, Chicago.

18. Rectal alimentation in diseases of the Skin; by Dr. J. V. Shoemaker, Philadelphia.

19. Vaccination during the incubation period of Variola; by Dr. William Welch, Philadelphia.

20. Studies in Hirsuties; by Dr. G. H. Rohé, Baltimore.

21. A unique case of progressive Melanosis of the Skin, with exhibition of subject; by A. R. Robinson, New York.

22. The pathology and therapeutics of Alopecia Areata; by A. R. Robinson.—As introduction to a general discussion of the subject.

A. R. ROBINSON, President of Section.

REGISTRATION BLANK.

"The Congress will consist of such members of the regular medical profession as shall have registered and taken out their tickets of admission, and of such other scientific men as the Executive Committee of the Congress shall deem it desirable to admit." The fee has been fixed at ten dollars. Each member of the Congress will be entitled to a copy of the Transactions.—*Rules of the Executive Committee.*

Those about to register will please read and give attention to the following directions to secure accuracy in the list of members of the Congress; and, to prevent mistakes therein, it is especially requested that all proper names of persons and places shall be

written distinctly and in full, and without abbreviations in any case. (*For example:* Instead of J. W. Taylor, Phila., Pa., it should be written John Warren Taylor, Philadelphia, Pennsylvania, etc., etc.)

By order of COMMITTEE OF ARRANGEMENTS.

Register No......

FORM TO BE FILLED UP BY APPLICANT FOR MEMBERSHIP IN THE CONGRESS.

Data Required:

Name in full.....
Post-Office Address.....
If in a city, give also street and number.....
If in the country, give also name of the county.....
State.....
Province.....
Country.....
If a Delegate, state from what country or society.....
Practice general or special.....
If special, name the branch.....

CONCERNING A COMMEMORATIVE MEDAL.

As former International Medical Congresses have been commemorated by suitable medals, it is proposed (should a sufficient number be subscribed for) to have one of good size and proper design struck for the IX Congress. A medal with the head of George Washington on the one side and the seal adopted for the Congress on the other, would doubtless be appropriate. The medal of the London Congress had the bust of the Queen on one side and the seal of the Congress on the obverse, and cost one guinea. Such a medal, well executed in bronze, will cost us five dollars. Those approving the project and desiring such a medal will deposit five dollars with the treasurer, who will give a receipt for the same, and deliver the medal in proper time, if struck.

Blank form to be filled:

Name in full.....
Post-Office Address.....
Number of medals subscribed for.....

If from any cause the medals should not be struck, the money will be returned to subscribers.

THE INTERNATIONAL MEDICAL CONGRESS.—We copy with full endorsement, the following from the July Number of the *Alcinist and Neurologist.*—[ED.] Before another issue of this *Journal* shall have gone forth to its readers over the world, the Congress will have met in Washington, received the cordial fraternal welcome America's physicians are preparing for it, finished its scientific work for the year and cemented anew the bond of friendship and fraternity existing throughout the world among all true physicians.

A few who invited the Congress may not be there to greet its members, but we hope they will.

We hope the few individual declarations of this kind will be reconsidered and revoked. At all events the Congress will be heartily received by the American profession as a body. The army will be there to honor them, though a few deserters may be in the rear, and a few "wounded in spirit."

But by September we hope to see all the wounded restored to the ranks and all the deserters from the camp brought back, not in ambulance or chains and under guard, but cheerfully returning (led by silken cords of love, as it were,) to welcome to our common country our common friends, who have been invited to accept the hospitality of our common household.

We will put our family jars in the closet where we keep our skeletons (if we have any on hand in September), and set our best viands on the table. We will lock that closet and bury that key or throw it into the sea, and hang out the latchstrings to our hearts and homes, as Americans are wont to do when guests whom they esteem come to their doors.

Americans know how to make up after a war as well as how to fight. This the world knows. We are not fighting over who shall run the Congress now but for funds to run it hospitably and creditably to the American good name for cordial hospitality.

Send on your funds, gentlemen, belligerents, to the finance committee, and your swords shall be turned into knives and forks and something for them to work on, and you shall make plowshare furrows into the affections of our coming guests, and pruning hooks to cut off the asperities engendered by the incipient late lamented unpleasantness among ourselves.

Everybody is going to the Congress, and everyone is going there in good humor too.

BRITISH MEMBERS OF THE CONGRESS.—The following members with ladies will sail for America to attend the Congress.

On the "Germanic" (10th August) will sail: Mr. and Mrs. Th. Halliburton, Dr. and Mrs. W. D. Halliburton, Misses M. and T. Halliburton; Dr. and Mrs. W. H. Woodruff; Dr. and Mrs. Grailly Hewitt; Dr. and Mrs. C. D. F. Phillips, Misses Phillips; Dr. E. Landolt.

On the "Adriatic" (August 17) Dr. and Mrs. W. Bowman Macleod.

On the "Brittanic" (August 24) Lennox Browne, Esq., London; G. J. Hutchinson, Esq., London; Dr. Grant Bey, Cairo; W. D. Spanton, Esq., Hanley; Dr. Boyd Joll, Liverpool; Dr. Eddowes, Market Drayton; H. Valentine Knaggs, Esq., London; Dr. S. Brown; Dr. Foster McGeogh; Dr. Parkinson; Comegys Leach, Dorset; AlfredAplin, Esq., Nottingham; Dr. Dolan, Halifax.

These are but a few to sail by White Star Line. I expect a large British contingent will attend.

(Signed) T. M. DOLAN, M.D.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 16, 1887, TO JULY 22, 1887.

By par. 43, S. O. 162, A. G. O., July 15, so much of par. 1, S. O. 156 c. s., A. G. O., as directs Capt. Jno. de C. W. Gardiner, Asst. Surgeon, U. S. Army, to report for duty at Ft. Washakie, Wyo., is revoked.

Capt. R. Barnett, Asst. Surgeon, sick leave still further extended six months on account of sickness. S. O. 162, A. G. O., July 15, 1887.

By par. 42, S. O. 162, A. G. O., July 15, so much of par. 1, S. O. 156 c. s., A. G. O., as relieves Capt. Geo. H. Torney, Asst. Surgeon, U. S. Army, from duty at Ft. Monroe, Va., is revoked.

Capt. A. W. Taylor, Asst. Surgeon, now at Ft. Laramie, Wyo., is ordered for temporary duty at Ft. Robinson, Neb. S. O. 162, A. G. O., July 15, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDING JULY 23, 1887.

Surgeon C. S. D. Fessenden, granted leave of absence for thirty days on account of sickness. July 18, 1887.

P. A. Surgeon F. W. Mead, granted leave of absence for thirty days. July 19, 1887.

P. A. Surgeon H. W. Yemans, granted leave of absence for thirty days. July 23, 1887.

P. A. Surgeon S. D. Brooks, promoted and appointed P. A. Surgeon from July 1, 1887. July 21, 1887.

Asst. Surgeon J. H. White, to proceed to Washington, D. C., as escort to an insane seaman. July 18, 1887. Ordered to examination for promotion. July 23, 1887.

Asst. Surgeon R. B. Watkins, leave extended fourteen days on account of sickness. July 20, 1887.

Asst. Surgeon G. M. Magruder, to proceed to Galveston, Tex., for temporary duty. July 21, 1887.